

PRIVATE SECTOR TRAINING NEEDS ASSESSMENT

HUMAN RESOURCES DEVELOPMENT ASSISTANCE (HRDA) PROJECT

(698-0463)

USAID/SUDAN

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PREFACE

The private sector training needs assessment conducted in the Sudan was financed by core funding from the Human Resources Development Assistance (698-0463) project of the Africa Bureau. The assessment team was instructed to prepare a document that USAID/Sudan might use as a statement of the training strategy and activities to be funded by the Mission under the HRDA project.

The proposed HRDA training strategy described in this document, however, may be adopted or modified by USAID/Sudan based upon available Mission resources and its determination as to whether the prescribed activities can be reasonably attained, given other Mission management responsibilities. AFR/TR/EHR will provide backstop support, especially as it relates to establishing linkages with institutions such as the Northwestern University International Internship Program and the American Association of Community and Junior Colleges. To the extent that core funding will allow and the Mission believes warranted, AFR/TR/EHR will provide in-country support to the Training Office and the HRDA Coordinator during the initial phases of the project.

Also, it should be noted that this assessment is not a comprehensive treatment of the constraints facing Sudanese business and industry or women. An abbreviated overview of the general economic and educational conditions in the Sudan is presented to provide a sense of the problems confronting the private sector and women, but the purpose of the assessment was to identify those problems which might be addressed through training and consulting as envisioned in the HRDA project paper. Through these activities it is anticipated that participants will develop skills to improve performance at the individual firm level and that collectively they will impact on the larger economic system.

EXECUTIVE SUMMARY

The purpose of the Human Resources Development Assistance (HRDA) project is to better meet the training needs of the private sector and women than has historically been the case. Of the total number of participants to be trained under this project, at least 50% will be from the private sector and 35% will be women.

The strategy for the HRDA project in the Sudan will be to utilize local training institutions and to strengthen their relationships with business, industry and private consulting firms. Additionally, the project will support the development of Khartoum Polytechnic, particularly in improving the technical training for female students and strengthening their ties with local women entrepreneurs through a cooperative education program.

Over the five year Life of Project, the estimated cost for the HRDA project in the Sudan will be \$1.8 million in local currency costs and \$1.7 million in U.S. dollars. This reflects the intensive use of local facilities and in-country training programs.

The Management Development Program will link a Sudanese private consulting firm with local management training institutions to offer short courses and on-the-job assistance in areas such as management accounting, costing, production control, repair/maintenance, product design, and family relations. Foreign experts will be brought in as needed by the local contractor to provide technical, industry-specific expertise not available in the Sudan. Businesses will pay a reasonable fee for this service. The dual purpose is to offer essential training to businessmen, and to train trainers in local management training institutions to better meet the needs of the business community.

The Khartoum Polytechnic Industry/Business Strengthening Program will develop a link with the American Association of Community and Junior Colleges. Through this relationship, the Polytechnic, a public-sector training institution, will be helped in establishing a cooperative training program with local business and industry. One-third of all positions for external short courses and study tours (concentrating on third-country sites rather than U.S. programs) will be reserved for women faculty.

I. HRDA PROJECT BACKGROUND, OBJECTIVES AND ASSESSMENT METHODS

The Human Resources Development Assistance (HRDA) project was preceded by two regional training projects, African Manpower Development Project I and II (AMDP I and AMDP II). These predecessor projects were used by Missions to supplement bilateral project funds and to meet training needs that could not be accommodated within these projects. AMDP I and AMDP II thus could be used to expand a Mission's established training portfolio.

In December 1986 an audit of the Africa Bureau's participant training program raised concerns about the fragmented nature of training. It was recommended that each Mission conduct a comprehensive assessment of training requirements in the host country and prepare a multi-year country training plan. This exercise would aim to produce an integrated training focus and strategy to mesh with Mission development objectives.

At the same time the Agency grew increasingly concerned about its performance in recruiting women and persons from the private sector into the participant training program. The Entrepreneurs International Program administered by the Office of International Training was created to link the U.S. business community with its counterpart in USAID host countries. The Africa Bureau's Office of Technical Resources for Education and Human Resources (AFR/TR/EHR) followed with the design of the HRDA project. Two of its principal performance targets are that (a) 35% of the participants supported by the project will be women and (b) 50% of those enrolled in project training activities will be from the private sector.

The task of the assessment team, then, was to fashion an HRDA project strategy for Sudan in order to attain these targets. The team in Sudan followed the information gathering plan piloted in Togo (Annex 1) and slightly modified the private sector questionnaire in response to suggestions by USAID/Sudan staff, U.S. Embassy commercial officers, and representatives of organizations such as the Sudanese Industries Association (Annex 2).

USAID/Sudan also expressed interest in a broader analysis of its participant training program. Within the short time available, the team attempted to meet this request by addressing some of the topics normally required in developing a country training plan. An analysis of the Mission's training program from 1977-1988 was accomplished by drawing information from the computerized Participant Training Management System (Annex 7). Second, interviews were conducted with a sample of international donors to determine their development aid and training objectives in

Sudan. Third, meetings were held with the government agencies with authority to coordinate the nation's training plan, as well as with a few ministries to get a sense of their priority needs and, in particular, their ability to promote the training of individuals from the private sector. Information gathered was quite helpful in lending a broader perspective on how training for the private sector and women has been and might be advanced in the Sudan.

II. PRIVATE SECTOR ENVIRONMENT IN SUDAN

A. The Private Sector Defined

For our purposes, the "private sector" includes any for-profit business. Our emphasis is on small- and medium-sized enterprises (SMEs) with less than 150 employees and privately owned, but some large firms have also been studied. Public enterprises and huge public-private joint ventures such as the Kennana sugar company are excluded, but SMEs with public and private shareholders are included. Many private business investors own all or part of many different businesses. These investors have import-export businesses, retail shops and other distribution businesses, real estate and land, and, to a lesser extent, manufacturing businesses. This diversification extends right down to the masses of traditional farmers and urban informal sector participants, most of whom cope with the unpredictability of income in any one activity by spreading their investment and effort across many activities.

The following section summarizes the environment in which Sudan's private sector operates. It also sets forth projected reforms that will assist private sector development and puts in perspective the degree to which HRDA training can help alleviate constraints.

B. General Economic Conditions and Expected Reforms

Sudan's economy is dominated by services, agriculture, and livestock which together account for 86% of GDP. Agriculture and livestock, which employs 79% of the labor force, is dominated by livestock (normally Sudan's principal export, though at present exports are banned), cotton (Sudan's principal agricultural export), sugarcane, and sorghum. Manufacturing, construction, energy & water account for the remainder of GDP.

Manufacturing accounts for 8% of GDP. Textiles, food processing and leather account for more than 50% of value added, but a significant portion is uneconomic. Problems include low capacity utilization, shortages of essential

inputs, misguided public investments, the nationalization and confiscation campaign of the 1970s, excessive government regulation, incentives for public vs. private enterprises, and for large-scale vs. small-scale ones, and loss of skilled workers and managers to the Middle East, resulting in declining labor productivity.

Small and Medium Enterprises (SMEs) are one bright spot in the manufacturing sector. SMEs with less than 25 employees account for less than 10% of investments, and yet yield 35% of industrial output and 40% of value added (based on 1981/82 survey data).

GDP has increased only modestly since 1975/76 and has declined since 1981/82. Since population is increasing at nearly 4% per annum (including refugee movements), there has been a serious decline in GDP per capita. Declining economic productivity, high budget and current account deficits, and high inflation have been caused in part by the 1982-1984 drought, the conflict in the South, and government instability and mismanagement have all contributed.

When former President Nimeiri acted to halt this economic decline in 1985, riots led to the fall of his government. A democratically-elected government took power in 1986, but it has so far made little progress in resolving the key issues of the war in the South and the economy. In February 1988, tentative agreement was reached between the Government and the IMF and World Bank on a major economic restructuring program to be presented by the Government at the Paris Club meeting in May. The details of the proposed economic restructuring haven't been released, but presumably include reduction of the government deficit, improved incentives for exports, and liberalization of the economy.

C. Private Sector Response and Role of Training

There are always entrepreneurs willing to do business in any policy environment, and the Sudan is no exception. Businesses in overregulated markets simply insist on higher returns than in freer, more predictable markets. Government rhetoric condemns the "black market" and "excessive profits", but such practices are the outcome of misguided government policies. Although the Sudanese market is chaotic, successful businessmen look at the chaos as a source of market advantage, not as a problem to get around. Chaos and uncertainty are market opportunities to the wise, who capitalize on short-term market anomalies.

In the current economic crisis, most profits are being made in commerce, not in manufacturing. The starting

point for promoting private manufacturing in the Sudan is creating freer markets by eliminating restrictions and distortions. In developing countries where macroeconomic reforms have taken place, they have a far greater impact on manufacturing development than the full range of programs targeted at training, credit, and provision of infrastructure.

The goal of freeing up markets is to allow attractive rates of return for economically efficient, productive enterprises. Consequently, existing manufacturing will expand, and new units will be created, resulting in new jobs, higher incomes, expanded markets for the informal sector, increased exports, and competitively priced goods for domestic consumption--thereby reducing the need for imports.

Even if the restructuring is fully implemented, Sudan's international competitive advantage is dubious. Desertification and a declining flow-rate of the Nile are reducing possibilities for agriculture and livestock, in the face of rapid population growth. Cotton, oilseeds, gum arabic and livestock are facing increased competition from rival producers. Continuation of the war in the South drains public resources needed for investment, and prevents exploitation of oil resources. Job opportunities for migrants are being cut back with the instability and economic downturn in the Gulf.

Even with all these problems, there are good reasons for moving ahead now with a new training initiative. First, because of an economic slowdown in the Gulf, many Sudanese expatriates are and will be returning to the Sudan with foreign-currency savings. Other initiatives such as the Arab Investment Council are already underway to encourage such investments. This Kuwait-based group has negotiated a deal with the Sudan government that companies built with repatriated Sudanese funds can hold 30% of export receipts in foreign escrow accounts to cover all foreign currency expenses, and to ensure the ability to withdraw the investment and convert it back into foreign currency if desired.

Secondly, there are major opportunities for boosting the role of women in the private sector. Many respondents noted that women are more reliable workers and even managers than men. Women have attained senior positions in government not because of affirmative action, but because so many qualified Sudanese men have emigrated to the Gulf; women are less likely to go, so they are promoted to vacant positions by default. Women have an important role in the clothing, perfume and cosmetics industry, but have so far not penetrated far in other

businesses. This is on the verge of changing. Businesses expressed a chronic need for office manager/secretaries, and this may be a strategic entry point for women to new industries.

III. CONDITIONS IN THE PRIVATE SECTOR

A. The Labour Force and Employment in Sudan

The labor force in Sudan was estimated to be 6.7 million in 1986 (see Table 1). 5.3 million (79% of the labor force) work in rural areas. An estimated half of rural household income comes from agriculture and livestock, 1/3 from wage employment and remittances, and 1/5 from trading, handicrafts, etc. As of October 1987, an estimated 1.2 million people risk starvation.

The urban labor force of 1.4 million works for the civil service (20%), public enterprises (10%), private formal enterprises (6%), and informal enterprises and temporary employment (50%). An estimated 13% are unemployed.

Taking the employed labor force as a whole, about 10% works in the formal sector, 10% in the urban informal sector, 10% in irrigated tenancies, and 70% as smallholders, pastoralists, landless labourers and refugees. About half of this latter group migrate seasonally in search of jobs on large-scale rainfed or irrigated farms.

Chronic income inequalities in Sudan exist between rural and urban areas, within rural areas, and between regions.

Sudanese expenditure data are more reliable than income data because the latter are more seasonal, and more subject to underestimation or non-response. Household surveys were conducted in 1967-68 and 1978-80. The urban-rural expenditure gap was 1.9 in 1978-80, a change from the 2.5 recorded in 67-68 resulting from declines in real wages for the urban formal sector, and employment pressure from rural-urban migrants, including refugees. Even in relatively prosperous Greater Khartoum, real household expenditures in 1978-80 were estimated to be 1/3 less than in 1967-68.

To measure regional inequalities, the ILO defined a composite basic-needs indicator including education, nutrition, and access to government services. The Khartoum region leads with 208, and the Southern region is last with 57, compared with a Sudan average of 100.

Two other important factors affect the labor market: immigration and emigration. The Sudan has had a long

Table 1

Sudanese employment estimates, 1983-86

	growth rate	1983	1984	1985	1986	'000
population	3.9%	21,593	22,435	23,310	24,219	
urban		4,361				
rural		17,232				
labor force	3.6%	6,165	6,387	6,617	6,855	
rural	3.4%	4,920	5,086	5,257	5,434	
male		3,801				
female		1,189				
urban	4.5%	1,245	1,301	1,360	1,421	
male		1,129				
female		116				
LABOR MARKETS						1986 urban
budgeted posts, civil service	20.4%		337	332	338	215
public corporation	10.3%		168		171	146
formal private	6.3%				90	75
informal+temp.	50.0%				710	710
unemployed	13.0%				185	185
=====						
TOTAL URBAN						1,411
total private						
formal priv					90	
informal					710	
=====						
TOTAL PRIVATE						800
private as % of total urban employment						
61.1%						
REFUGEES						
380,000 Ethiopians settled in towns if LFPR same as Sudan average,						
Labor force						108
percent of total urban private						
13.6%						
EMMIGRANTS						
low est	31.2%	urban private workforce			250	
high est	62.5%				500	

SOURCE: estimated from data in ILO, 1987.

Notes:

1. Assumed labor force partic. growth rates for 83-86 are at same rate as for 73-83. This reasonable compared to ILO estimated rate of 2.5% exclusive of refugees.
2. urban unemployment estimated from 1973 census and 1978-80 household expenditure survey.
3. ILO estimates urban informal sector as 50% of labor force; all estimates of informal sector subject to definitional problems.
4. budgeted civil service and public enterprise posts less than total urban because of vacancies, and fact that some positions are in rural areas.

history of immigration: in the 1956 census, an estimated 10-15% of the population were of West African origin (generally travellers to Mecca who stayed to work on agricultural schemes). In 1986, there were over 1 million refugees, mainly from Ethiopia, accounting for 5% of the population. Although half are living in internationally supported refugee camps, many are competing with Sudanese workers for scarce urban jobs.

For example, an estimated 100,000 Ethiopians are working or looking for work in Sudanese towns, compared to a total workforce of 790,000 in the urban private sector. Since October 1987, the government has banned the entry of new refugees, and announced plans for returning to refugee camps all undocumented immigrants found in towns. However, it is unlikely that these intentions can be enforced.

The Sudanese labor force itself is increasing at about 230,000 per year, including 120,000 secondary school leavers. Since there is little or no growth in the public sector, nearly all this growth must be absorbed by the private sector, in addition to the refugees seeking work. Thus, private sector training is vitally needed.

Emigration presents different problems. An estimated 250,000 - 500,000 Sudanese are working in North Africa and the Middle East. Although this reduces some pressure on the unskilled labor market, and is the Sudan's largest source of foreign exchange, it represents a loss of essential skilled manpower. For example, in 1985 as many as 2/3 of the Sudan's technical and professional labor force were working abroad, and the average emigrant had 12 years of work experience before leaving. Although emigration may be declining with the economic slowdown in the Middle East, there is still a chronic skill deficit in the Sudan that needs to be filled through training.

B. Constraints and Training Needs

1. Profile of Firms Interviewed

During the assessment, twenty-six firms were interviewed with offices or factories/workshops in Khartoum, Khartoum North, Omdurman, Wad Medani, Kosti, Sennar, Kassala, and Shendi. Firms were selected based on recommendations from the Sudanese Industries Association, USAID personnel, the US Embassy, and the businesses themselves.

The team did not interview participants in the informal sector, but interviewees often mentioned links with this sector for meals, vehicle repairs, etc. The informal

sector will be covered in a separate assessment by the Mission. In June, a team of three local experts on the informal sector will prepare a preliminary assessment, to be completed jointly with four experts coming from the US.

One of the sample firms was the Workshop Branch of the Faisal Islamic Bank, which purchases tools, sewing machines, and other equipment for craftsmen and artisans. Repayment in monthly installments over 1-3 years includes a nominal profit, but the main objective is to stimulate emerging businesses. Over the last year, LS 21 million (\$4.7 million) in "investments" have been made to 850 clients, in amounts ranging from LS 500 - 300,000 (\$112 - 67,000). The bank claimed that all clients were legally registered as members of associations or unions of artisans, and/or had licenses to do business.

Interviews were generally held with the firm's owner or general manager. Because of the extremely short time provided for assessing the largest country in Africa, firms in many other important regions of the Sudan were omitted. A future assessment should cover Port Sudan, the Northern Region, Kordofan, Darfur, and the South. As discussed above, most of the owners of firms interviewed had diversified portfolios of businesses. Because of the present tenuousness but long-term potential of manufacturing, the assessment team drew most of its sample from manufacturing units. In most cases, the owners also had investments in trade and other sectors, because this is where profits are quick and large. Indeed, one of the reasons for investment in manufacturing was to secure import licenses and foreign exchange from official channels which could then be diverted in part to high-profit imports like women's tops from Switzerland. Our sample is not representative of the private sector in Sudan, most of which is involved solely in trade.

There was the whole spectrum of technology from simple tools to computer-controlled, automated machinery. The majority used labor-intensive, simple technology because of difficulties in importing expensive equipment and spares, and the lack of technicians, engineers, and workshops for service. One respondent had been using labor-intensive production for eight years, but said he was considering automated machinery because of the tight labor market for unskilled labor during the harvesting season.

Few of the firms exported their products, but many exported other agricultural and mineral commodities, in some cases to earn the foreign currency needed to carry on their manufacturing business. Those that had tried to export manufactured goods found their prices uncompetitive

because of high Sudanese costs and government-subsidized competitors from India, Iraq, and other low-cost producers.

One respondent said his products were smuggled into Ethiopia, Central African Republic, Chad, Zaire, Mali and Niger, where they were competitive because of currency differences. In one trading scheme, trucks bought in Nigeria are sold in Burundi, the profits are used to buy coffee and tea which are sold in the Sudan, and the proceeds used to buy tinned fruits and vegetables sold along the route back to Nigeria, where the process begins again.

Only 31% of the firms indicated a high degree of competition. The most critical factor in competitive advantage is access to supplies of raw materials and equipment, and to technical expertise.

Most respondents were frustrated with governmental mismanagement of the economy leading to supply and foreign exchange constraints, but nearly two-thirds thought prospects for their own businesses were good or excellent. Some were optimistic that deregulation and an end to the war in the South were near.

Most of the businesses were SMEs with 1-3 partner/owners, often from the same family. In the typical management structure, the Chairman is the principal shareholder. The General Manager may also be a shareholder, and is usually younger and better educated. In manufacturing firms, the GM is usually a production control engineer. Many firms relied on family for management positions. Very few firms had any women employees.

None of the firms employed expatriate managers. However, the subsidiaries of foreign firms had frequent supervisory and training visits from international staff.

The principal constraints to business development as perceived by the respondents were, in order of priority:

Access to imported supplies and equipment- 53%

There have been chronic shortages of imported inputs, particularly during the last few years. When firms can get import licenses, they can't get foreign exchange through official channels, and can't afford the black market rate which is currently nearly three times higher. Even pharmaceutical firms which receive priority for foreign exchange have been shut down for lack of imported inputs. Two firms said they had confirmed LCs for trade deals with Egypt, but that all trade between the two countries had been halted since last July over a political dispute.

Need for better-trained personnel- 23%

The most frequent complaint was turnover, and the resultant lack of trained personnel. Experienced managers, engineers, and accountants leave for jobs in the Gulf at up to 15 times the salary. Even unskilled laborers leave for more lucrative jobs in the refugee-care business and harvesting crops.

Part of the turnover problem may be compensation packages, which are mainly salaries and benefits with immediate payouts. Corporate pension plans have been replaced by government social security, and long term loans are no longer offered because there are no pensions for collateral.

Thus, some firms are reluctant to invest in training for fears that newly trained staff will leave. Most are willing to invest in training, but are not willing to pay market rates for expatriate trainers. Local trainers are not available for technical areas like asbestos pipe production or injection moulding, and are of uneven quality in general management and accounting. Among foreign trainers, there is a preference for Europeans and Americans first, Indians second, and Egyptians third, apparently more for psychological reasons than technical competence.

Local Supplies - 14%

Raw materials are not available or affordable because local production of sugar, cement, etc. is insufficient to meet demand.

2. Reported Training Needs

The principal training needs voiced by the owners/general managers were:

For themselves: 62% felt they needed training. The priority areas were:

General Management:	33%
Financial Management and Costing:	24%
Production Planning:	14%
Marketing, Sales and Product Design:	14%
Personnel Management, Purchasing, English:	16%

Most would prefer spending 3 nights a week, and most said they would be willing to pay.

For their managers: 93% felt their managers need training in the following areas:

Management Accounting, Financ. Mgmt., Costing:	25%
Production Planning, Mgmt., and Control:	22%
General Management:	16%
Marketing and Sales:	11%
Product Design:	6%
Computers:	5%
Storekeeping:	4%
Repair/Maintenance:	4%
Office Management:	2%

There are only 75 qualified Sudanese accountants, and half of them are working in the Gulf. Most firms use bookkeepers, and as a result may not know whether they are making a profit or a loss, and why. Some firms don't understand the difference between income and cash flow.

Owners/general managers want to train an average of 4 managers each.

For their workers: 57% felt their technicians and technical staff need training in the following areas:

Repair, Maintenance and Operations:	37%
Good Manufacturing Practice:	13%
Mgmt. Audit, Purchasing	12%
Storekeeping:	10%
Workshop Skills:	10%
Computers:	8%
Sewing:	6%
Understanding Business Environment:	5%

Nine of the firms had used local training institutes.

IV. EDUCATION AND TRAINING RESOURCES

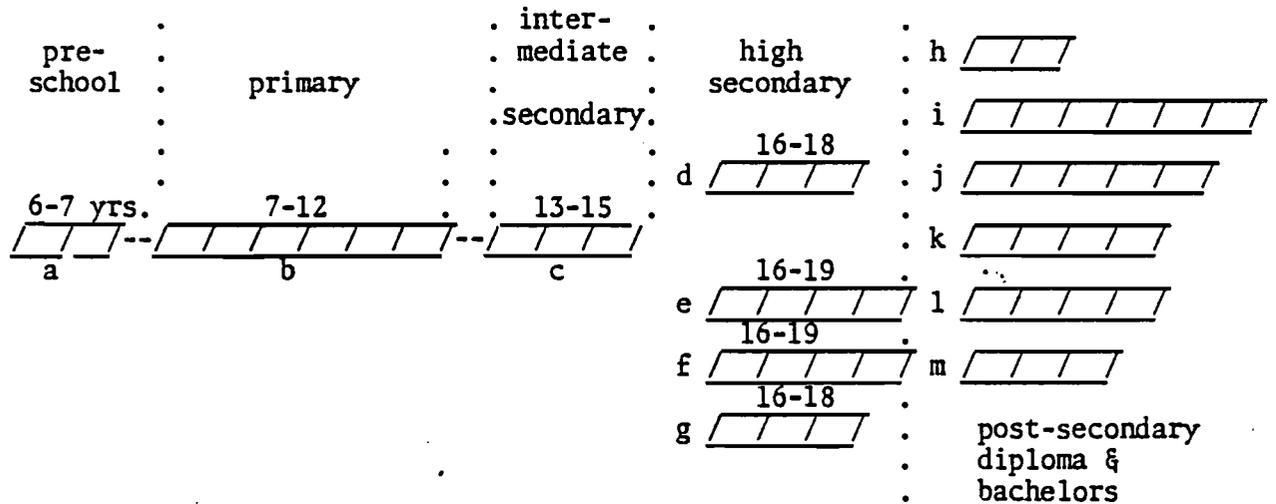
A. The General Education System

Figure 1 illustrates the configuration of Sudan's formal education system up to the post-baccalaureate level. The formal system of education consists of six years of primary, three years of intermediate secondary, and three or four years of higher secondary schooling. Twenty per cent of all recurrent Government expenditures goes to education.

Even though the GOS goal is universal primary schooling, in fact less than half of the children enter the primary

Sudan Education System:

Pre-School Through Bacculaureate Level



Key

- (a) Preschool/Village Kuran school
- (b) Primary
- (c) Junior Secondary
- (d) High Secondary
- (e) Technical Secondary
- (f) Teachers Training
- (g) Vocational Training
- (h) Teachers Training
- (i) Medical Degrees
- (j) Honors Degrees
- (k) General Degrees
- (l) Technical Diplomas
- (m) Intermediate Diplomas

Figure 1

system each year. There are about one and one-half million pupils in 6000 primary schools employing 43,000 teachers. Approximately 19% of all primary school graduates proceed to the intermediate level. Only one-half of these entrants will pass into the higher secondary level.

At the high secondary level, there are 288 three-year academic secondary schools (Figure 1:d). There are 50 four-year technical secondary schools (Figure 1:e) and 18 four-year teacher training institutions (Figure 1:f). Technical secondary schools, in turn, are specialized into four types--industrial, commercial, agricultural, and girls. The number of pupils in the academic stream outnumber those in the technical stream 10:1. Enrollment in teacher training institutes is less than 5% of the academic enrollment.

The bias towards academic preparation away from technical and teachers training has implications for the system as a whole. The formal educational system depends upon the quality of its teachers. Unfortunately, the general outflow of trained and professional labor from Sudan has victimized the schools as well. For example, a survey conducted in 1977 and 1978 by the Higher Education Grants Committee found that, from a sample of 360 recent graduates from the Faculties of Education, only 20 were still in Sudan or in the teaching profession. Of the 20 still in teaching, 16 were women who often were constrained by family considerations. A recent ILO study has estimated that one-third of secondary school teachers have migrated abroad to neighboring countries such as Kuwait, Yemen, United Arab Emirates, Saudi Arabia and Egypt.

In order to replenish the system at the primary level caused by low enrollment in teacher training institutions (Figure 1:f,h) 15 year olds who have failed the Sudan Intermediate Exam are recruited for two years of training in pedagogy and returned as instructors to the primary level. Likewise, unsuccessful aspirants from the higher secondary level to the next level are quickly tooled to be instructors at the intermediate secondary level. Consequently, about one-quarter of primary teachers, one-third of secondary school instructors, and nearly one-half of intermediate technical training staff are inadequately prepared for their work. At the higher education level, several faculties depend upon part-time faculty to cope with vacancies caused by staff leaving for employment elsewhere, especially in the Gulf states where the combination of English and Arabic language skills enhance their graduate training and experience.

Less than 20% of the successful secondary school graduates move into the post-secondary diploma and baccalaureate track. Nevertheless, enrollments at this level and post-baccalaureate level are too high in relationship to economic absorptive capacity. Given the current economic situation, the private sector mainly employs lower skilled people. Only 14.5% of higher education graduates found employment in public sector service in 1985-86; this sector represents 83% of the employment opportunities. Even in such fields as agriculture, nearly a third of the Bachelors graduates failed to secure a job.

It is ironic that this would occur in a country like Sudan which is in need of such skilled professionals. But many graduates do not willingly accept job offers in the rural areas where there is a high demand for their services. Many prefer administrative positions in the urban areas where their technical skills are not really used. This reflects, in part, higher education itself. Most universities and post-graduate institutions remain lodged in the theoretical mode of education and postured for status in the international academic community. Production of research papers and articles often is accorded higher value--motivated by institutional desire for international position and by individual understanding of what such recognition means for future earning power--than the production of reading materials for students or interaction with their potential employers. Even at schools such as Vocational Training Centers operated by the Ministry of Labor for graduates of intermediate level education, there is little evidence that job and skill assessments are conducted to determine whether students are acquiring employable skills for the local market.

The Universities of Gezira and Juba, however, are attempting to establish faculties with professional commitment to community service and curricula regularly exposing instructional staff and students to village and on-the-job life. It is too early to predict whether these young institutions founded only ten years ago will be able to retain faculty through incentives and rewards to offset the lure of external financial rewards and international academic recognition for theoretical work.

Given the nature of higher education, then, the consensus is that the system is expanding too rapidly. There are approximately 10,000 students enrolled at the University of Khartoum, 12-13000 at the University of Cairo/Khartoum Branch, 900 at Omdurman Islamic University, 1000 at the University of Juba, and 1400 at the University of Gezira. The last two insitutions plan to increase enrollments to 10,000 each. Yet, the current output cannot be absorbed

by the labor market. The ILO has found that the vast majority of higher education graduates are unemployed and has recommended a cutback in higher education growth, especially in courses of study not linked to gainful employment.

In regards to gender distribution within the education system, there are 50% more males than females enrolled at the primary school level; the proportion of males increases further at the baccalaureate level.

Distribution of Students by Gender

Level	Male	Female	
Primary	60%	40%	(1984/85)a
Intermediate	57%	43%	(1984/85)a
Secondary	57%	43%	(1984/85)a
University			
Un of Cairo, Kht.	61%	39%	(1984/85)b
Un of Khartoum	70%	30%	(1982/83)b
Khartoum Polytech	70%	30%	(1987/88)c
Un of Gezira	73%	27%	(1984/85)b

Source: (a) FAO, 1987 (b)ILO, 1987 (c) Interview with Director of Khartoum Polytechnic, March 1988

At the transition from secondary to higher level, women lose ground. This is due, in part, to religious beliefs that discourage females from entering co-educational schools. The school system does not adequately assure education for the majority of women in Sudan.

B. Planning and Coordination of Training for the Private Sector and Women

The National Training Administration (NTA) is the body to which all GOS ministries and parastatals submit annual training plans. These plans are gleaned, negotiated and forwarded to the Council of Ministers for final approval. The NTA then becomes the authority issuing official releases to attend training programs. The Government's policy requires organizations to use in-country programs and resources whenever possible, and nearly 70% of the annual national training plan is devoted to internal training. Overseas training has become too costly for the GOS which has exacerbated the problem with regulations that allow Sudanese attending programs beyond 12 months to withdraw and convert between 60-100% of their salary into foreign currency based on the 1978 exchange rate.

The principal criterion in evaluating training plans appears to be the match with previous submissions.

Departments which have permitted an unacceptable number of out-transfers or seek replacements for persons who have emigrated elsewhere may be denied training slots. Candidates cannot be renominated if they have received other training within the past 12 months. If an unanticipated, externally financed training opportunity is offered to a ministry or parastatal, the NTA may not be able or willing to convert salary or to send families to join a participant which is normally permitted those studying more than 6 months abroad. Still, for the most part the National Training Administration does not seem to interfere much with training proposals except to pare down wish lists to fit within GOS annual training allocations.

The solicitation and synthesis of ministerial training plans into a national plan, the evaluation of individual nominations, and the monitoring of returned participants is a time-consuming endeavor for the NTA. Moreover, the Council of Ministers recently approved an NTA proposal to eventually have all Training Officers on its rolls but seconded to ministries and parastatals needing help in the management of public sector training. Private sector training is not within the Administration's normal purview, and it is unlikely that the NTA will be able to assume such an added charge.

In regards to NTAs performance in recruiting women for training, interviews with several donors indicated that this arrangement was not yielding many female candidates. This could be explained by the fact that there is a smaller, although not insignificant, pool of women from which to draw. There is, also, a less than sufficient level of effort to recruit and match women with training opportunities. It is not common, for example, for donors to use a quota system that would encourage the recruitment of women.

The Higher Education Grants Committee plays a similar role to the NTA for staff development at universities and post-graduate institutes. It evaluates higher education training plans, monitors for compliance with GOS policies and directives of the Council of Higher Education, and seeks funds for institutional support. It, like the National Training Administration, has and will have even greater work demands in the forthcoming years as it tries to help manage the physical and instructional expansion of the university system.

The GOS ministries, each struggling to acquire sufficient number of training opportunities for its own employees, are not inclined to share their training budgets in order to promote the training of persons in the private sector.

The National Council for Vocational Training and Apprenticeship is charged with coordinating programs at the Vocational Training Centers. It, however, has proven to be rather ineffective.

Acknowledging this significant gap in private sector training coordination, a recent UNIDO study recommended the creation of a Joint Advisory Board for Industrial Training.

C. Training Resources for Women and the Private Sector

The team visited eight institutions and one private consulting firm to gather information on their training capabilities vis-a-vis the private sector and women. The Management Development Center, Khartoum Polytechnic, and Hassabo & Company have had the most interaction with business and industry. The University of Khartoum and University of Gezira demonstrated keen interest in developing closer relationships with the private sector.

The Ahfad University College of Women enjoys a special position in the Sudan as a private institution and one with 90% women faculty and an all female student body. It has received several grants to strengthen its rural outreach and to improve the practical training of its students. Khartoum Polytechnic enrolls nearly as many female students but tends to draw them from less urban, wealthy social strata. The Polytechnic produces graduates with technical skills attuned to the job market; Ahfad produces graduates self-conscious of their responsibility to articulate and model new occupational roles in society. Both institutions play different but equally important educational functions.

The HRDA project may use any of the training resources described here and in Annex 11. The project will draw upon the expertise of several institutions, depending upon the technical and managerial training program or consulting assignment requested by the Sudanese Industries Association. For purposes of illustration, three training resources are described below. The Management Development Center is a public, nonresidential training center that is primarily a non-degree granting institute aimed at the management cadre. The Khartoum Polytechnic is a post-secondary diploma and, in a few disciplines, baccalaureate institute producing mid-level technical and professional workers. Hassabo & Co. is a local private accounting/consulting firm with an international outreach to other firms in Europe, the Middle East, and the U.S.

1. Management Development Center.

The Management Development Center (MDC) was chartered in 1965 as a cooperative venture between the GOS and UNDP and ILO; in 1979 it became an autonomous school under the portfolio of the Ministry of Labor and governed by a Board of Directors. The Center offers approximately 18 courses per year of 2 to 25 weeks in duration. Courses address such topics as general management, production, accounting, financial management, marketing and personnel. About 40% of the participants come from the private sector; the remainder are routed into the courses through the National Training Administration.

Since 1981 Trinity College of Dublin, Ireland, and the MDC have granted a post-baccalaureate diploma in management. This program, known as the Executive Development Program, is a 25 week course for Sudanese senior and mid-level managers. Costs of the program, including lodging at hotels for the duration of the course, are borne by the Government or employers through tuition fees. Because this is proving to be too expensive, the Executive Development Program will be conducted at and in collaboration with the University of Gezira in the near future. This will significantly strengthen the technical advisory capability of the MDC for it will have access to expertise at the university's Small Scale Industries Development Center. Trinity College will continue to lend training assistance as necessary for this program and will also help establish an MBA program at the University of Gezira. It is anticipated that after 3 years, the university and the MDC will be able to carry on both programs without assistance from Trinity College.

The MDC additionally provides consulting services to businesses and government agencies. It conducts management audits, market studies, work assessments, production analyses, human resource evaluations, etc. These activities have allowed the Center to get a better grasp of the environment in which business and public organizations operate and has provided case materials for use in training programs. Nonetheless, the staff believes that it would benefit from an association with U.S. consulting firms, especially those with experience in resource deficient settings. The staff feels that it needs an injection of new consulting models and techniques for working with their clients.

2. Khartoum Polytechnic.

The Khartoum Polytechnic was created in 1975 from an amalgamation of several higher technical institutes, some

of which had been in existence since the 1940s. Daytime students now number 2300, and 2000 students are enrolled in evening classes. Sessions begin at 7:00 a.m. and often continue until 9:00 p.m. Women comprise 30% of the student body. Seven percent of the faculty of 305 are women.

The Polytechnic consists of five colleges: Agricultural Studies, Business Studies, Engineering and Scientific Studies, Fine and Applied Arts, and Further Education. The College of Engineering and Scientific Studies is the largest with 1400 students. The Polytechnic has three main campuses in Khartoum and one smaller one beyond the industrial area in Khartoum North and two others at Hilat Kuku and Soba where agricultural courses of study are taught. (The main agricultural campus is located at Shambat). This scattered presence testifies to the Polytechnic's extensive outreach.

In addition, the TechnoCenter--a consultancy and service unit--responds to requests for short-course and consulting needs of business and government. For example, it has arranged for research studies on sunflower production, has sent survey teams to assist on a highway project, and has conducted short-courses for the banking community, dairy industry and the police. It seeks joint venture research with industry and the parastatals. The institution serves a diverse clientele.

The College of Business contains four departments offering accountancy, banking and export, costing, and secretarial studies. Two-thirds of the students in the College graduate in accounting and banking and usually succeed in getting positions at the mid-management level. The Secretarial Studies Department is a three year program which emphasizes language training and typing in English and Arabic. The 50 graduates each year are readily absorbed by the private sector, as is the annual output of 40 accountants. It is one of the few educational institutions that produces technicians who, oftentimes, have job offers before they complete training.

Over the past 10 years The British Council has annually contributed 350,000 British pounds, and the World Bank is to provide a \$15 million loan for upgrading the technical equipment. USAID has committed funds for the planning and construction of three dormitories for the College of Agricultural Studies which will allow for an intake of 30% women in the College each year.

3. Hassabo & Company

Hassabo & Company is the Deloitte, Haskins and Sells affiliate in the Sudan. Three other "big eight" firms have affiliates, and there is one other major independent accounting firm. Hassabo has a management consulting branch and has worked closely with the Management Development Center and the Institute of Accounting Studies.

The firm has developed extensive and intimate familiarity with many Sudanese businesses and industries through its audit practice. Also, close ties with the Sudanese expatriate community in the Gulf has resulted from many years of working out of its Kuwait office. Hassabo can easily draw on specialized international resources of the Deloitte group and currently has a Deloitte associate working in the Khartoum office. Another senior person is a former Auditor General for the Sudan government and former head of the Institute of Accounting Studies. Hassabo has more the 50 employees, many of whom could develop case materials derived from their financial and management audits of Sudanese private and parastatal firms.

Firms like Hassabo & Company have a comparative advantage to most training institutions in the Sudan because they have access to professional materials and personnel from the international community and have established mechanisms for easily contracting with outside experts. Their association with local training institutions under the HRDA project will add a new dimension to the private sector support network in the Sudan.

V. DONOR ACTIVITY IN PRIVATE SECTOR AND WOMEN DEVELOPMENT

A. USAID/Sudan

1. Project and Training Activities

The U.S. assistance program in Sudan was resumed in 1977. The March 1984 USAID/Sudan CDSS Concepts Paper indicated a desire to shift ongoing and new project activities and program initiatives toward encouraging government decentralization and privatization and supporting the private sector. The June 1987 ABS again highlighted the Mission's intention to promote privatization, but it noted that Sudanese officials were not supportive.

Nonetheless, steps have been taken to foster privatization and private sector development. In 1977 the Agricultural Planning and Statistics project (650-0047) PACD was extended to April 1991 so that Ministry of Agriculture officials can be trained in agricultural policy analysis

which ought to increase government awareness of policy constraints inhibiting agricultural production. Under this project two in-country training courses--Basic Agricultural Survey and Statistical Methods (TC 140-3) and Policy Formulation and Analysis (TC 140-19) will be conducted by the USDA/OICD in mid-1988. Approximately 20 MOA officials will attend each course, and the University of Gezira, Faculty of Economics and Rural Development, will provide a U.S. trained Ph.D. holder to help facilitate the courses. This will strengthen the capability of the university to design and deliver similar programs in the future and will capitalize on previous training investment in this individual.

Likewise, the Regional Finance and Planning project (650-0012) has been amended with a PACD of August 1990 and shifts the emphasis to increased local implementation using PVOs in the Kordofan and Darfur Provinces. Provisions have been made to ensure that there will be increased participation of local private enterprises and women. The Policy Analysis and Implementation project (650-0071) will end in March 1989 and has involved officials from the Ministry of Finance and Economic Planning in conducting studies and conferences on ways to implement national policy changes at the regional level.

The Private Sector Seed Initiative project (650-0081) is being undertaken to gather information on the potential for private sector production of seed, to engage U.S. technical assistance, and to promote joint ventures between U.S. and Sudanese companies. Already the Pioneer Seed Company Ltd/Sudan has been formed as a joint venture between local Sudanese shareholders and Pioneer Overseas Corporation, a wholly owned subsidiary of Pioneer Hi-Bred International Inc. of Des Moines, Iowa. The objective will be to produce and distribute brand seeds of alfalfa, forage sorghum, grain sorghum, maize and pearl millet.

Finally, the Commodity Import Program has been vital to private sector participants, given the chronic scarcity of imported inputs. Many firms interviewed told us that the only reason they were currently in production was because of CIP assistance.

An analysis of the Mission's participant training program using the computerized PTMS database in the Training Office indicates that these projects may contribute to a change in the complexion of the program. An examination of the returned participant file shows that from 1977 to the present:

- * Only one person from the private sector has been sponsored by the Mission for training.

- * Of the 687 training sponsorships, only 11 persons from the Ministry of Commerce or the Ministry of Industry have participated in U.S. short-term, technical training. No one from these ministries has been sent for academic study. No training has been provided to individuals from the Sudanese Industries Association, an organization of some 700 businesspersons and industrialists.
- * Nearly all of the training has focused on public sector organizations in agriculture (approximately 22% of the sponsored training programs), health (18%), energy (17%), research (8%, which excludes agricultural research and includes a significant portion for energy research), finance and banking (8%), and higher education (7%).
- * 70% of the participants have been recruited from the Khartoum area.
- * 13% of the training has been for longterm, U.S. academic study costing 44% of the participant training budget; 87% of the training has been for short-term technical training (mostly in the U.S.) but representing only 56% of program cost.
- * One person has been recruited from the Khartoum Polytechnic, the only comprehensive technical training institute in the Sudan.
- * Ahfad University College of Women has had only one faculty member trained by USAID. In contrast, 32 University of Khartoum faculty have participated in U.S. academic and technical programs.
- * 5% of the academic training and 18% of the technical training has been allocated for women.

The Mission has a commendable record of women's participation in technical training, although this has been bolstered by a concentration on the health sector which is a traditional female employment field. The above also reveals a public sector, headquarters bias (see Annex 7). The high cost of U.S. academic training in comparison to U.S. technical course is supported by estimates by the Office of International Training which calculates that an academic year averages about \$25,000 per participant or roughly the equivalent of a 6 week technical program for four participants. Technical short-courses delivered in-country such as the ones scheduled under the Agricultural Planning and Statistics project will cost approximately \$3100 per participant, nearly one-half the price for an identical course conducted in the United

States. For this reason in-country training is an attractive mode of participant training, not to mention the benefits accruing from institution-building when working with local training organizations.

The Training Office has conducted surveys of returned participants who attended overseas academic and technical courses under Mission funding from 1977-85. Of the 469 respondents, 72% had attended technical courses. Nearly one-half of them expressed a desire for follow-up contact with the Mission after completion of training. Many commented that short courses can be quite useful but that such training would be more effective if it was planned as a series of activities that reinforce and improve upon understandings and skills. Recommended follow-up activities were formal, in-country seminars and workshops focused on special topics, informal contact with U.S. specialists on longterm or TDY assignments to Sudan, and circulation of publications and newsletters to keep them abreast of events and issues in their areas of expertise. These concerns have been taken into account in the design of the HRDA project in Sudan.

Future planned training activities in Sudan are weighted toward in-country training that will take the form of workshops using project technical assistance or local training institutions. Projects primarily using this strategy include the Sudan Reforestation and Anti-Desertification Project (650-0082), Regional Finance and Planning Project (650-0012), Model Family Planning Project (650-3003), and Demographic and Health Survey Project (PID stage). The Sudan Renewable Energy Project (650-0041) will send 12 Masters and 18 short-course participants to the U.S., and other centrally funded projects will fund U.S. short-courses for 77 participants. The Agricultural Planning and Statistics Project (650-0047) will be sending one Ph.D. candidate and eight Masters candidates to the U.S.

2. Loan guarantees

Many LDC entrepreneurs have commercially viable ideas, but limited access to credit because of lack of collateral. When their project ideas have the potential to earn foreign currency, currency swaps are possible, but for ventures aimed at domestic markets, they are stuck.

A.I.D.'s Private Enterprise Guarantee Fund provides letters of credit to such enterprises, which in turn give them access to loan capital. AID's funds are leveraged, since reserves are required to be only 25% of contingent liabilities.

A current proposal attached to the Trade Bill would set up a Private Enterprise Revolving Fund to guarantee US or other loans to businesses in Sudan and other LDCs up to \$5 million.

B. Training Activities of Other Donors: Summary
Observations

The team met with representatives from three international donors (i.e. World Bank, UNIDO/UNDP, EEC), three national donors (i.e. United Kingdom, the Netherlands, West Germany), and one private organization (i.e. Ford Foundation). The purpose of these meetings was to determine the thrust of donor aid to the Sudan and particularly to assess the extent to which training was being used to promote private sector development and opportunities for women. Detailed findings are presented in Annex 8.

The Dutch government demonstrated the greatest commitment to promoting equal opportunity for women. In fact, the Embassy will soon employ a woman whose sole responsibility will be to examine the Dutch aid portfolio, to assess the impact of its assistance to the Sudan in light of women's needs, and to pursue more coordinated efforts with other donors. For several years the Embassy has provided technical assistance to Ahfad University because of its unique role in Sudanese society as somewhat of a vanguard for women's development. No other donor seems to have placed this issue as high on the agenda or taken similar concrete steps focused primarily on the development of women.

The World Bank has extended a mixture of grants and loans to support the Institute of Accounting Studies in the Sudan and on a worldwide basis has established a management consulting service and a risk insurance fund. UNIDO, which has as its central mission the development of industry, gave short-course scholarships to 20 Sudanese from the private sector during the 1987/88 year; the other 80 were granted to individuals from the government or parastatals. This is a better record than any other donor, including USAID/Sudan, in terms of meeting the training needs of the private sector.

One is struck, however, by A.I.D.'s use of training as an integral feature of development aid. The Agency requires that its participant training program reflects country specific needs and that its projects use training components as carefully considered means to reaching project and Mission objectives in a particular host country. In contrast, most of the other donors treat

training as a central headquarter's supermarket offering to the host country. While traditions have developed in the Sudan over the years (e.g. the Ministry of Agriculture and the Dutch government have used the NFP funds to primarily finance short-course training in agriculture), off-shore training often is used as a marginal development activity by most donors without regard to target audiences or to a training strategy. Training thus yields to forces of personal influence and perceived human resource needs of the moment rather than to longer term organizational or sectoral objectives.

Nonetheless, it can be said of all donors that training has not been adequately used as a tool for advancing women or the private sector.

VI. HRDA TRAINING STRATEGY OF USAID/SUDAN

A. HRDA Project Goal in the Sudan

The goal of the HRDA project in the Sudan will be to enhance linkages between local training resources and the private sector. A private consulting firm will design and carry out management training courses and on-the-job training jointly with local management training institutions. The emphasis will be on SMEs, but some large firms will also be included because of the severe problems facing all firms due to the extraordinarily poor economic situation in the Sudan. There is a significant opportunity, especially within the textile industry, to incorporate women entrepreneurs. Where necessary external training will be given to leaders in the private sector and to local private sector consulting and training professionals.

B. Training Objectives for the Private Sector

USAID/Sudan's private sector training activities will focus on five objectives:

1. Improve top-level management for growth and change

The support of Chairmen, General Managers and shareholders is fundamental to the success of any training activity. They must understand why it is better to make a commitment to training early on in the life of their business, even if this requires turning down orders and settling for lower initial profits. They need to learn what it costs not to train staff in terms of higher overheads, poor-quality products, and dissatisfied customers. They need to learn how to put together a compensation

package so that they can retain trained staff, thereby giving them confidence to invest money in training.

They need to learn what to do with first-generation managers who were vital in getting the company started, but become ineffective and alienated as the business grows and changes its character. They need to learn the basics of leadership: the ability to make good judgements, and to do so again and again. Leadership and effective management, like fine art, are too complex to be reduced to a set of rules; they have to be learned and practiced in real situations, with real outcomes. The difference between leaders and everybody else isn't what kind of people they are, but what they accomplish, and whether they can avoid blunders as big as their victories.

2. Improve mid-level professional and technical skills

Start-up companies rarely start out with experienced professional and technical staff: they can't afford them, and such people are usually not up to the volatile requirements of small business. Many managers in Sudan's SMEs are family members selected for their trustworthiness and bloodline rather than professional and technical skills. As firms expand, turnover of key employees aggravates this situation, as employees seek more lucrative opportunities in the Gulf.

Training is essential to turn inexperienced employees into pros. Experienced professionals need to be retrained as firms grow, and new products and systems are introduced. A mixture of outside seminars, on-the-job workshops and consultancies, and lunchtime training classes by general managers can't begin soon enough if a firm is to grow and prosper. In setting up training programs, firms need to distinguish between masters of technical skills who are only so-so at training, and master trainers with only a general knowledge of a given technical area. Successful training requires both types of people to work together.

There is also demand for workshop skills: welding, painting, lathe operation, drilling, etc. Specialized training is needed in areas such as asbestos pipe manufacturing and plastic injection moulding. Training should be given to workshop managers or foremen---they can train their workers. Women also

need training in office management/secretarial skills, use of sewing machines, and cosmetics technology.

3. Train financial managers to use innovative means of financing and obtaining supplies and equipment

The greatest problem facing Sudanese business is financing and obtaining supplies and equipment. SMEs have problems raising capital the world over: conservative lenders prefer larger borrowers who are proven risks to entrepreneurs with potential. Also in the Sudan as in other countries, government credit, foreign exchange, import licences, and allocations of raw materials all favor large-scale businesses vs. SMEs. These problems should be addressed on two levels: lenders need training to better understand and manage the risk of lending to SMEs, and SMEs need to learn to use alternative sources of financing, and to reduce their requirements for bank credits.

On the first level, SMEs need training in packaging their financing needs to banks, and in developing accounting systems acceptable to banks. Banks need training in managing SME financing risks through, for example, group guarantees from business cooperatives, and pooling funds among banks, PVOs and donors to make available longer-term credit and to spread the risk.

Bankers need training in innovative mechanisms involving foreign currency, such as currency swaps and countertrade. By offering these services on a fee basis, they could develop new profit centers without adding new exposure to their balance sheets, and offer a more predictable system for their clients for meeting foreign exchange commitments than dealing with the black market.

On the second level, SMEs need training in reducing their working capital requirements by using just-in-time deliveries, longer credit terms from suppliers, and larger up-front cash payments from customers. Like bankers, they need training in innovative means for obtaining foreign currency, and also how to redesign products and business practices to reduce the need for foreign currency.

Particular emphasis is required on building management accounting skills. Most Sudanese businesses use, at best, bookkeepers for their accounts, and emphasize tax evasion, financial controls and administrative concerns. There is a

vital need for taking a more strategic view of financial management. Success amidst sharply escalating input prices requires reducing waste while enhancing employee productivity and morale.

Rather than getting employees to reuse paper clips, accountant managers should focus on cutting back on the need for imported supplies and equipment, reducing the number of financial transactions, reducing internal reporting requirements, retraining employees whose jobs are no longer needed, eliminating unprofitable products, improving quality control, cutting out unnecessary luxuries for senior executives, not purchasing capital equipment until it is vitally needed, and then only after budgeting for maintenance costs, factoring in the risks of supply constraints leading to capital underutilization, and communicating all of this to decision makers in the firm.

4. Instruct managers in how to diversify into new products and services

SMEs successful in developing and marketing one product often falter when they try to diversify; yet without new products and services, they risk supply constraints that prevent expansion, or even threaten existing production of their initial product. In some sectors there may also be the risk of saturation of their initial niche market, and pressure from imitators and larger competitors and imported products. However, in the Sudan the much greater risk is on the supply side, and the best strategy is to diversify. New products with minimal requirements for imported inputs are most needed.

SMEs need training in how to remedy their competitive weaknesses, to analyze their competitive advantages, and to refocus on their strengths and expand on them. They need to learn when it is best to offer new products to their existing customer base, and when to offer existing products to new customers. Since "second acts" are very risky, they need training in how to learn from their failures.

5. Improve family relations in business

Family-owned businesses in the Sudan face a difficult balancing act in managing a mixture of love, money, power, jealousy, and greed. Even in the US, one study showed that only 13% of established family businesses ever make it to the third generation.

One method for increasing the chances of success is to make the rules for running the business clear to all family members. This is best done by spending time where all family members get together and come to a consensus on exactly what they expect from the business and the family.

Training is required in helping families decide on business objectives, succession, stock ownership, compensation, recruitment, and performance evaluation.

C. HRDA Project Objectives for Training Women

Women who own or are employed as managers, professionals or technicians in businesses will be participants in the private sector training and consulting programs. Where men and women have coterminous needs and can be trained together, they will be equally served by the HRDA project. This aspect of the project is women inclusive, meaning that their participation is an integral part of project activities. The management mechanism of the project--namely the Private Sector Steering Committee--will require the representation of women to ensure that whenever an activity is considered, modifications or special recruitment efforts will be made as needed to make private sector training and consulting relevant to women.

In order to be in a position to accurately represent the needs of women in the Private Sector Steering Committee, a three month study will be commissioned and completed by October 1988. The target group will be those women who own small scale businesses. An American consultant and two Sudanese consultants will conduct the study. One of these women should be from the Khartoum Polytechnic and the other drawn from the Development Studies and Research Center of the University of Khartoum or from the School of Organizational Management of Ahfad University College of Women. Both of the last two organizations have been involved in women development activities for some time; Khartoum Polytechnic must be involved because of the broader industry/business linkage program described below.

To the extent possible this study will be coordinated with a larger study being conducted by the Mission as one of the preparatory steps to creating a WID strategy. This information will then be the basis for directing private sector training and consulting in ways that address the concerns of women

entrepreneurs. One major purpose of the HRDA project is to improve the economic fortunes of women in Africa. In the Sudanese context this will take the form of establishing better relationships between the newly emerging group of women entrepreneurs and female students and teachers at Khartoum Polytechnic. As elaborated later, the institution will be assisted by the project in developing a cooperative education program which will bring these two groups closer together.

The objective of the HRDA project, then, will be to increase female faculty and students' knowledge and skills for operating a small business themselves or, at least, to enable them to teach rural and urban women how to manage small income-generating projects. Many of the graduates of Khartoum Polytechnic will be working with less wealthy clients. As future extensionists or teachers at Youth Training Centers, Polytechnic graduates will be working with women who earn money in the shadow economy or in the agricultural sector. Women often use their homes as a base for attempting to supplement their income through projects such as weaving, sewing, food processing and catering, vegetable trading, hairdressing and personal beautification, child minding, etc.

Although these women have different resource levels and constraints than the entrepreneurial group, it is expected that Polytechnic students will benefit from associating with these businesswomen, many of whom themselves began with small income-generating projects. The cooperative education program (described below) should also benefit faculty who teach courses such as sewing, cosmetic technology, food processing, etc. Faculty will get a better understanding of the business side of their technical specialties and will be encouraged to modify curricula and lesson plans with this purpose in mind.

D. Target Audiences

Target audiences for training in top-level management of growth and change are owners and general managers of private businesses, with emphasis on SME manufacturers, and a particular effort to involve women-owned and women managed firms, and firms linked to the agricultural and livestock sectors. There will also be an effort to target new investors such as the Sudan Investment Co. and other returning Sudanese expatriates. Service providers will be assisted in fields like exporting, accounting, and

transportation. Training in mid-level professional and technical skills will be offered to production managers, sales managers, engineers, office managers, and product designers in the same firms.

Target audiences for training in innovative means of financing supplies and equipment are owners, general managers, and accountants, and bookkeepers. Training in developing new products and services will be for owners, general managers, engineers and product designers. Training in family relations in business will be for all family members involved in family-owned businesses.

The HRDA project will train trainers and consultants to be more effective in their work with the private sector. In a similar way, faculty who teach women students at Ahfad University and at Khartoum Polytechnic will receive various educational opportunities under the HRDA.

Finally, a few senior government officials will be invited to participate in training activities so as to expose them to private sector issues and to enable them to foster changes within government for the advancement of private sector development.

E. Training Activities and Their Coordination

1. Contracting Mechanism and Project Coordination

USAID will negotiate a subsidiary agreement to the basic 1958 agreement with the Sudan Government on the US assistance program to Sudan, allowing for disbursement of funds directly to the private sector. Management training and consulting programs will be coordinated through the Sudanese Industries Association (SIA). In March 1988 the Board of Ministers approved a proposal from the SIA that it proceed with plans to provide its members with technical and management training and to establish a data information center and design center. This will make the negotiation for a subsidiary agreement much easier than otherwise might be the case.

The SIA is a voluntary association of more than 700 industries and businesses in the larger Khartoum and Gezira areas. It is organized into seven major interest groups, known as chambers: plastics, metals, pharmaceuticals and chemicals, textiles and leather, electrical and electronics, food, and services. The members share a common interest in manufacturing, although many are involved in commerce as well.

Despite a political climate favoring government owned enterprises and a controlled economy, the association has established itself as a respected voice of private industry. The SIA interacts frequently with the Ministry of Industry and Ministry of Commerce with whom the association raises concerns of Sudanese manufacturers.

The SIA will set up a steering committee which will include, in addition to SIA leaders, one member each from the Ministry of Industry and USAID. Another position on the committee will be reserved for a woman to represent the interests of women entrepreneurs. This person might be chosen from the Development Studies and Research Center of the University of Khartoum, Ahfad University College of Women, or from Khartoum Polytechnic. This steering committee will decide how to most productively move ahead.

The SIA may instruct USAID to contract with a joint team including an experienced local private sector accounting/consulting firm and one or more local training institutions such as the University of Gezira/Management Development Center, Khartoum Polytechnic, the Institute of Accounting Studies, the University of Khartoum/School of Business Administration or the Management Development Center. A strong local component is essential because outsiders will not understand the complex web of alliances among different Sudanese business communities which determines how businesses operate in the Sudan. Even the local training institutions are not by themselves capable of penetrating the subtleties of the business environment.

The local accounting/consulting firm should be experienced in drawing on the resources of an international management consulting firm such as Deloitte Haskins, Peat Marwick, Touche Ross, Coopers & Lybrand, SGV (Philippines), AIM (Asian Institute of Management, Manila), Arthur D. Little, etc.

In the case of the Khartoum Polytechnic Industry/Business Strengthening Program, the funds will be allocated to the school under a PIO/T. A steering committee with USAID representation will be formed to plan activities, evaluate performance and establish training policy as required. The primary reasons for contracting only with the Polytechnic as opposed to making an additional, separate arrangement with Ahfad University are that (a) it simplifies USAID/Sudan financial monitoring and (b) the

Polytechnic serves a larger business and industry clientele than Ahfad. Nonetheless, faculty from Ahfad University occasionally teach at Khartoum Polytechnic, joint student workshops can be arranged without difficulty, and the development of the cooperative education program can be used to uncover new internship opportunities for female students at both institutions.

The HRDA project will fund the position of a HRDA project coordinator who will be hired locally and will reside at the Sudanese Industries Association. Because in-country training is a labor intensive effort and because many different entities are involved in the implementation of the project, the coordination of consulting and training activities will require someone who can devote fulltime to the project. This person will be responsible for drafting scopes of work for training and consultancies, liaising with the USAID controller's and contract's office, communicating with the Training Office (especially in regards to U.S. and Third country training), and ensuring proper coordination between the Management Development Program and the Khartoum Polytechnic Industry/Business Strengthening Program. It is essential that the person be hired as soon as possible.

2. Management Development (MD) Programs

A variety of HRDA project activities will be mounted to help Sudanese SMEs improve their performance. The training and consulting initiatives will ultimately aim at imparting knowledge and skills relative to the five training objectives. A series of activities will be taken by the project in order to reach these objectives.

a. Establish a textile design center at SIA

A German advisor from CIM/ILO has been provided to the Sudanese Industries Association (SIA) for two years to help set up a women's fashion design training center and to promote the local ready-made clothing industry. She has extensive experience in textiles and apparel design. During her short period of association with the SIA, she has been able to identify 56 women owned and managed clothing enterprises within the Khartoum area. Many of these are small household operations of about a dozen machines, but some women own 40-50 sewing machines and employ as many workers.

One major handicap has been the ability of these firms to compete with the variety of imported styles, even though the all cotton material is more appropriate than the imported polyester-cotton material. There are few design publications available; one firm, for instance, has only a single catalogue, published in the 1960s, from which the designer draws ideas for making patterns.

The design center is a concept endorsed by the Board of Ministers and supported by the SIA leadership. Space has been allocated in the SIA building for a training room, a library, and a small office for the advisor. What is required are resource materials such as catalogues, magazines, basic reference books and video tapes, some furniture, and teaching equipment. Except for resource materials, all the items can be purchased locally. Approximately \$22,000 and the equivalent of \$100,000 in local currency will be needed to establish the design center.

Although the HRDA project is not intended to be a means for significant funding of training equipment and supplies, the opportunity for reaching women in the Sudan may rest on the establishment of such a center that can eventually serve as a focal point for organizing women entrepreneurs engaged in other enterprises as well. The fact that the center will be located at SIA headquarters is all the more reason to support its development for it will be a reminder to the association that businesswomen ought to participate in the Management Development training and consulting programs.

b. Provide on-the-job training in training and consulting skills

c. Develop managerial and technical skills through training and consulting

Management development programs will be conducted in the Sudan and will run from 2 days to 3 months on a part-time or full-time basis. Each program will focus on one or more of the five training objectives. Participant groups will be as homogenous as possible; for example, they may all be from the same company, or the same industry, or from the same secondary town or village.

Initial training of trainers will take place from July-September 1988. An experienced SME trainer will be provided by a local accounting/management firm to

act as team leader for these courses. This person must have experience working in business in the Sudan and be acceptable to the SIA. He/she will supervise a team of MD trainers. Recent U.S. MBA graduates can be provided to the contractor through the International Intern Program, Kellogg School of Management, Northwestern University (see Annex 5). If Kellogg cannot provide the number required, others could be recruited from other MBA programs.

These trainers should ideally have experience in the Sudan or a similar business environment, but this is not essential. At a minimum, they should have an MBA and 2 years of business experience, or some other technical qualification and 4 years of business experience. MD trainers should be recruited such that all the necessary skills are represented (eg. innovative accounting, compensation, family negotiation, diversification, office management and product development, etc.).

These MD trainers will be assigned to work with local training institutions (e.g., Management Development Center, Khartoum Polytechnic, University of Khartoum). They and the team leader will evaluate existing training materials if any, and develop a plan for preparing or obtaining any new materials required. Training courses will be designed and delivered using cases mainly drawn from Sudan or other developing countries. The U.S. MD trainers and their Sudanese counterparts will prepare Sudanese case materials by meeting with local businessmen and and businesswomen. It is through this process that MD trainers will exchange ideas concerning consulting and training and will actually practice related professional skills.

The first MD programs will begin about 4 weeks after the MD team begins work in the Sudan. Initial pilot programs will last for 2 days to four weeks. Courses will be taught jointly by the team leader, the MD trainers, and their training institution counterparts. Based on the results of the pilot programs, the MD team will help each of the participating institutions draw up a program of workshops and practical seminars lasting until July 1989, when the MD team will evaluate progress over the year and help to develop a program for the following year. This new program will also take into account the results of the Mission's proposed assessment of the informal sector.

The MD program will cost \$42,000 and the equivalent of \$120,000 in local currency in year 1 for the team leader, MD trainers, and specialized technical experts. It is estimated that \$6,000 plus the equivalent of \$70,000 in local currency will be needed for meeting other local costs associated with supporting the local training institutions. In addition, 4 US short courses and 5 Third country short courses will be provided each year for candidates from the SIA membership and the local training institutions.

d. Provide specialized professional and technical assistance

It is anticipated that many owners and general managers will ask for specific consultancy services to supplement the MD program, particularly for businesses in the high end of the SME spectrum and larger. The team leader and MD consultants (from Sudan, a Third country, or the U.S.) will assist the participating training institutions to develop management consulting services to serve these needs. Examples of specialized consultancies are providing technical advice on pipe design or perfecting plastics production. Additional specialized assistance might be provided through AMSCO (see Section V.B.3 above).

e. Expose senior government officials to private sector issues

It was suggested by a number of parties that advancing the cause of private sector development will require the understanding of key government officials. Likely candidates will be those working in the Ministry of Industry and Ministry of Commerce. During FY 88, 89 and 90 the project will provide for 2 US short courses and a Third country tour for 2 officials to meet with counterparts in a country with a significant private sector.

3. Khartoum Polytechnic Industry/Business Strengthening Program

Interviews with managers in business and industry indicated that Khartoum Polytechnic produces technically trained graduates better prepared for the world of work than graduates of other institutions in Sudan. The Polytechnic primarily maintains its link with business and industry through personal relationships built over many years of interaction between staff and employers. Many of the staff work

as consultants with the private sector. Former students are also another source of information for the institution. However, there is no formal relationship between the school and the private sector, although there have been preliminary discussions between the Polytechnic and the Sudanese Industries Association about this issue.

Regular contact with business and industry is valued by the Khartoum Polytechnic for two reasons: (a) it keeps the school abreast of needs and new trends occurring in industry so that the curriculum can be adjusted accordingly and (b) business and industry is a far superior place to train students than in the school laboratory or workshop because on-the-job training provides an opportunity to learn organizational and interpersonal aspects related to their future work.

However, the Polytechnic has failed to satisfactorily achieve its goal of developing a good information base on what business and industry is doing in Sudan--particularly in terms of technology being used and the kinds of skilled workers required. It would be useful if, for example, the school had a better idea of the kinds of machinery and equipment being used, the qualifications of the labor force currently employed, plans for business expansion, new management and organizational practices being adopted, projected needs for skilled labor, etc. The institute has computers which could be used to store this kind of information and to permit easy access and updating of records when required.

A more fundamental problem is knowing how to approach business and industry and how to design a cooperative training program that is satisfactory to businessmen and businesswomen. The HRDA project, through its association with the Sudanese Industries Association and the Management Development Program, offers business and industry an opportunity to seek out training facilities that can address its training needs. The HRDA project, in turn, will support Khartoum Polytechnic in reaching out to business and industry. Many of the activities sponsored by the HRDA project will be beneficial to both groups and will be mutually reinforcing.

The Polytechnic has not yet developed a systematic approach to identifying businesses and industries that can be used as internship centers for its students. While the private sector may not be flourishing with new employment opportunities, the

institute believes that a systematic assessment of on-the-job study opportunities would reveal new internship possibilities for its students.

a. Establish a cooperative education program

The project will finance a supervised occupation study in cooperation with the American Association of Community and Junior Colleges, a national organization representing the kinds of training institutions comparable to Khartoum Polytechnic. One of the purposes of the HRDA project is to stimulate and support relationships of this sort between African and U.S. training institutions. After identifying a community college(s) in the U.S. which matches the instructional program profile of the Polytechnic, two representatives from the institute will visit the American community college(s) to examine its cooperative education program and learn how it was initiated and developed. An important element of the observational tour will be to understand the conditions which American businesses set before cooperating with educational institutions in occupational training.

Thereafter, a team from the U.S. college will come to Sudan to conduct an assessment of internship opportunities for Polytechnic students and to recommend ways of setting up a cooperative training program with Sudanese businesses and industrial firms. This team will be comprised of at least one woman who will focus on opportunities for female students. The outcome of the assessment study will be a compendium of potential internship sites and formal agreements to be used by Khartoum Polytechnic and the business community. This assignment will require close cooperation of the Sudanese Industries Association, and it will be important to have its understanding and endorsement of the study before it commences. The study team will also suggest types of cooperative training arrangements that might be used and the ways and means for implementing the program.

b. Gather information on women entrepreneurs and their training needs

As described earlier, the Sudanese Industries Association has developed ties with women entrepreneurs involved in the production and sale of ready made clothing. Faculty at Ahfad University College of Women, Khartoum Polytechnic and the University of Khartoum/Development Studies and

Research Center attested that there are many other women entrepreneurs emergin in the Khartoum area. These women have established businesses in furniture making, pre-school nurseries, educational materials publication, etc. However, little is known about this emergent group of businesswomen, except for informal knowledge that exists within the social network. This kind of information must be gathered and made available to the SIA steering committee to ensure that the training and consulting needs of women entrepreneurs are met. Moreover, this information will provide a good base upon which the cooperative education assessment team can seek out occupational training sites for female students.

- c. Provide short-term training in cooperative education, labor force analysis, workshop maintenance, teaching methods, curriculum design, business management for women's enterprises, etc.

It is anticipated that the team sent to establish the cooperative education program will uncover other training and consulting needs of Khartoum Polytechnic. Some of these have been expressed but not explored in detail. One potential area of cooperation between the American Association of Community and Junior Colleges and the Polytechnic might be in the area of curriculum development, especially as regards to revising the curricula and course syllabi to reflect a practical business oriented use of technical skills. Other training workshops or consultancies might be needed on teaching methodology (many faculty have come to the institute as technicians directly from industry), laboratory and workshop maintenance administration, designing graduate tracer studies, forecasting workforce needs, etc. A provision has been made for two persons to participate in a two month study attachment per year in the U.S. (most probably at a community college or an industrial training center). The HRDA project will fund eight U.S. short-courses and eight Third Country short-courses during LOP. Observational tours to exemplary technical institutions in the region have also been planned; one-third of all short course and observational study tour positions (in each respective category) will be allocated to women faculty.

d. Provide academic training to women faculty in small business administration or entrepreneurship

The HRDA project in Sudan will sponsor one U.S. Masters program and one Ph.D. program in Sudan. Ahfad University made the latter request and has a candidate in mind for the development of its small business administration program. However, this person will continue to teach at Ahfad while pursuing studies at the University of Khartoum.

e. Offer specialized technical assistance

As will be the case with the MD program, it is anticipated that specialized needs will arise as the project evolves. For example, study tours abroad may stimulate relationships with representatives from notable training institutions or experts in various fields who could provide expertise on specialized topics such as printing technology or electronics. If coordinated properly with the Sudanese Industries Association, the kinds of experts invited could be selected on the basis of mutual benefit. Other consultants might be required to design special educational materials, instruct faculty on the use of audio-visual aids, etc. Teaching aids, books and journals will be provided to the extent that they are needed for improving the training of students for occupations in the private sector.

F. Implementation Plan

Because of the particular constraints of women and persons working in the private sector (e.g. limited freedom to leave families and businesses for extended periods of time), the HRDA project paper envisioned greater use of third country and in-country training programs and facilities. Interviews with these target groups confirmed their ready endorsement of in-country training programs. Accordingly, the implementation plan is weighted heavily toward the use of Sudanese training resources.

Table 2 and Table 3 illustrate the sequence of training and consulting activities. Table 2 denotes two special items--provision for HRDA project coordination and provision for training supplies for the SIA design center. The HRDA coordinator position will be essential for the efficient scheduling and implementation of the project. The establishment of the design center will result in a series of training and consulting activities to be supported by technical assistance provided by the CIM/ILO.

Table 2

HRDA Implementation Plan: Management Development Program

Objective/Activity	No. Consultants (c), Participants (p), Workshops (w), Tours (t)				
	FY 88	FY 89	FY 90	FY 91	FY 92
1. To provide for HRDA Coordination					
a. 1 Person hired locally for LOP	XX	XX	XX	XX	XX
2. To establish textile design center					
a. Provide training materials	XX	XX	XX		
3. To provide OJT in training and consulting skills.					
4. To develop managerial and technical skills					
a. US Tech Trg (6 wk)	4p	4p	4p	4p	4p
b. TC Tech Trg (4 wk)	5p	5p	5p	5p	5p
c. IC Workshop/Consultancy	6w/c	6w/c	6w/c	6w/c	6w/c
5. To provide specialized professional and technical assistance (4 wk)	4c	4c	4c	4c	4c
6. To expose senior government officials to private sector issues					
a. US Tech Trg (6 wk)	2p	2p	2p		
b. TC Tech Trg (4 wk)	2p	2p	2p		
KEY:	US = US training location				
	TC = Third Country training location				
	IC = In-Country training/consulting				

Table 3

HRDA Implementation Plan: Khartoum Polytechnic Industry/Business Strengthening Program

Objective/Activity	No. Consultants (c), Participants (p), Workshops (w), Tours (t)				
	FY 88	FY 89	FY 90	FY 91	FY 92
1. To gather information on women entrepreneurs and training needs					
a. Women Entrepreneur Study (3 mos.)	3c (2 Sudanese)				
2. To establish cooperative education program at Khartoum Polytechnic					
a. Coop Ed Assessment (3 mos)	4c (2 Sudanese)				
b. US Study Tour (2 mos)	2p	2p			
3. To train women faculty in Small Business Administration/Entrepreneurship					
a. US Acad Trg (Kht Poly)			1 MS		
b. TC Acad Trg					
c. IC Acad Trg (Ahfad)			1 PhD		
4. To provide training in cooperative education, laborforce analysis, workshop maintenance, teaching methods, curriculum design, business mgt. for women, etc.					
a. US Tech Trg (6 wk)		2p	2p	2p	2p
b. TC Tech Trg (6 wk)		2p	2p	2p	2p
c. IC Workshop (6 wk)		2w	2w	2w	2w
d. US Study Tour (2 mos)			2p		
e. TC Study Tour (4 wk)		3t x 4p	3t x 4p	3t x 4p	3t x 4p
5. To provide specialized technical assistance in areas such as printing technology, computer application packages, etc.					
a. IC Consultancy (6 wk)		1c	1c	1c	1c

KEY: US = US training location
 TC = Third Country training location
 IC = In-Country training/consulting

VII. HRDA Project Budget

Over the five year Life of Project, the estimated cost will be \$1.855 million in local currency costs and \$1.738 million in U.S. dollars. Because the Management Development Program is almost entirely an in-country program, nearly all of its costs can be met with local currency (\$ 1.735 million). The remaining costs will require a U.S. dollar allocation of approximately \$900,000.

The Khartoum Polytechnic Industry/Business Strengthening Program will cost \$834,500 in U.S. dollars and \$119,775 in local currency. The foreign currency component might be decreased if in-country expenses for consultants employed for the in-country workshops, the women entrepreneur assessment, and the cooperative education assessment were met using local currency accounts.

The estimated FY 88 costs are \$315,800 in Sudanese pounds and \$267,000 in U.S. dollars.

Tables 4, 5, 6 and 7 illustrate costs for academic training (U.S., Third Country, and in-country), for technical, short-term training (U.S., Third Country, and in-country), and for special consultancies and assessment activities.

Table 4

Total Estimated Costs

Activity	Estimated Cost each FY (for LS, \$ equivalent value is listed)											
	FY 88		FY 89		FY 90		FY 91		FY 92		Total	
	LS (in \$)	\$	LS (in \$)	\$	LS (in \$)	\$	LS (in \$)	\$	LS (in \$)	\$	LS (in \$)	\$
US Acad Trg						50,000						50,000
TC Acad Trg												
IC Acad Trg					8,989						8,989	
US Tech Trg		60,000		80,000		80,000		60,000		60,000		340,000
TC Tech Trg		28,000		36,000		36,000		28,000		28,000		156,000
IC Tech Trg	290,651	69,846	389,415	132,391	281,452	132,391	293,002	132,391	263,789	132,391	1,518,309	599,410
US Study Tour		20,000		20,000		20,000		20,000				80,000
TC Study Tour				45,000		50,000		55,000		55,000		205,000
Special Activities												
HRDA Coord	11,666		35,000		35,000		35,000		35,000			151,666
IC Consultancy			20,000		20,000		20,000					60,000
Women Entrep Assessment	6,742	45,000									6,742	45,000
Coop Ed Establishment	6,742	45,000									6,742	45,000
Inflation (5% p.a.)			21,221	16,670	32,544	38,839	49,200	47,309	59,758	55,078	162,723	157,896
FY Total	315,800	267,846	445,636	350,061	357,985	427,230	377,203	362,700	358,547	330,469		
Project Total											1,855,171	1,738,306

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Table 5

Estimated Costs: Management Development Programs

Activity	Estimated Cost each FY (for LS, \$ equivalent value is listed)											
	FY 88		FY 89		FY 90		FY 91		FY 92		Total	
	<u>LS (in \$)</u>	<u>\$</u>	<u>LS (in \$)</u>	<u>\$</u>	<u>LS (in \$)</u>	<u>\$</u>	<u>LS (in \$)</u>	<u>\$</u>	<u>LS (in \$)</u>	<u>\$</u>	<u>LS (in \$)</u>	<u>\$</u>
US Acad Trg												
TC Acad Trg												
IC Acad Trg												
US Tech Trg		60,000		60,000		60,000		40,000		40,000		260,000
TC Tech Trg		28,000		28,000		28,000		20,000		20,000		124,000
IC Tech Trg	290,651	69,846	360,202	92,391	252,239	92,391	263,789	92,391	263,789	92,391	1,430,669	439,410
US Study Tour												
TC Study Tour												
HRDA Coord	11,666		35,000		35,000		35,000		35,000		151,666	
Inflation (5% p.a.)			19,760	9,020	28,724	18,039	44,818	22,859	59,758	30,478	153,060	80,396
FY Total	302,317	157,846	414,962	189,411	315,963	198,430	343,607	175,250	358,547	182,869		
Management Development Program Total											1,735,395	903,806

Table 6

Estimated Costs: Khartoum Polytechnic Ind/Bus Strengthening Program

Activity	Estimated Cost each FY (for LS, \$ equivalent value is listed)											
	FY 88		FY 89		FY 90		FY 91		FY 92		Total	
	LS (in \$)	\$	LS (in \$)	\$	LS (in \$)	\$	LS (in \$)	\$	LS (in \$)	\$	LS (in \$)	\$
US Acad Trg					50,000							50,000
TC Acad Trg												
IC Acad Trg					8,989						8,989	
US Tech Trg			20,000		20,000		20,000		20,000			80,000
TC Tech Trg			8,000		8,000		8,000		8,000			32,000
IC Tech Trg			29,213	40,000	29,213	40,000	29,213	40,000	40,000		87,640	160,000
US Study Tour	20,000		20,000		20,000		20,000					80,000
TC Study Tour			45,000		50,000		55,000		55,000			205,000
Special Activities												
IC Consultancy			20,000		20,000		20,000					60,000
Women Entrep Assessment	6,742	45,000										
Coop Ed Establishment	6,742	45,000										
Inflation (5% p.a.)			1,461	7,650	3,820	20,800	4,382	24,450		24,600	9,663	77,500
FY Total	13,483	110,000	30,674	160,650	42,022	228,800	33,596	187,450		147,600		
Khartoum Polytechnic Industry/Business Strengthening Program Total											119,775	834,500

Table 7

Detailed Budget Breakdown: Management Development Program

	<u>Local Currency</u> (in U.S. \$)	<u>U.S. \$</u>
FY 88		
A. In-Country		
Team leader, local contractor, 3 person months	\$ 36,168	
MBAs and other specialists local contractor	\$ 51,480	
3 Kellogg MBAs, 3 x 2 pm (subsistence only)	\$ 21,000	\$ 9,000
technical experts, 2 pm (preference from region)		\$ 28,496
4 rd trips per diem	\$ 11,580	\$ 4,000
hotel seminar rooms	\$ 20,000	
supplies	\$ 100,000	\$ 22,000
local trg expenses	\$ 24,000	
misc. expenses (10%)	\$ 26,423	\$ 6,350
Subtotal	<u>\$ 290,651</u>	<u>\$ 69,846</u>
B. 6 U.S. short-term courses		\$ 60,000
C. 7 Third-country short courses		\$ 28,000
D. HRDA Coordination	\$ 11,666	
<u>Total FY 88</u>	<u>\$ 302,317</u>	<u>\$ 157,846</u>

FY 89

A. In-Country

Team leader, local contractor, 6 person months	\$ 72,336	
MBAs and other specialists, local contractor	\$ 102,960	
3 Kellogg MBAs, 3 x 2 pm (subsistence only)	\$ 21,000	\$ 9,000

hotel seminar rooms	\$ 20,000	
subsistence for out-of-town participants	\$ 20,000	
local trg instit expenses	\$ 48,000	
misc. expenses (10%)	\$ 32,746	\$ 8,399
Subtotal	\$ 360,202	\$ 92,391
B. 6 U.S. short-term courses		\$ 60,000
C. 7 Third-country short courses		\$ 28,000
D. HRDA Coordination	\$ 35,000	
Inflation (5%)	\$ 19,760	\$ 9,020
<u>Total FY 89</u>	<u>\$ 414,962</u>	<u>\$ 189,411</u>

FY 90

A. In-Country

Team leader, local contractor, 3 person-months	\$ 36,168	
MBAs and other specialists, local contractor, 9 pm	\$ 51,480	
3 Kellogg MBAs, 3x 2 pm	\$ 10,500	\$ 9,000
technical experts, 4 pm (preference from region)		\$ 56,992
8 rd trips per diem	\$ 23,160	\$ 8,000
supplies	\$ 20,000	\$ 10,000
hotel seminar rooms	\$ 20,000	
subsistence for out-of-town participants	\$ 20,000	
local trg instit expenses	\$ 48,000	
misc expenses (10%)	\$ 22,931	\$ 8,399
Subtotal	\$ 252,239	\$ 92,391
B. 6 U.S. short-term courses		\$ 60,000
C. 7 Third-country short courses		\$ 28,000
D. HRDA Coordination	\$ 35,000	
Inflation (10%)	\$ 28,724	\$ 18,039
<u>Total FY 90</u>	<u>\$ 315,963</u>	<u>\$ 198,430</u>

FY 91

A. In-Country

Team leader, local contractor, 3 person months	\$ 36,168	
MBAs and other specialists, local contractor	\$ 51,480	
3 Kellogg MBAs, 3 x 2 pm (subsistence only)	\$ 21,000	\$ 9,000
technical expert, 4 pm (preference from region)		\$ 56,992
8 rd trips per diem	\$ 23,160	\$ 8,000
supplies	\$ 20,000	\$ 10,000
hotel seminar rooms	\$ 20,000	
subsistence for out-of-town participants	\$ 20,000	
local trg instit expenses	\$ 48,000	
misc expenses (10%)	\$ 23,981	\$ 8,399
Subtotal	<u>\$ 263,789</u>	<u>\$ 92,391</u>
B. 4 U.S. short-term courses		\$ 40,000
C. 5 Third-country short courses		\$ 20,000
D. HRDA Coordination	\$ 35,000	
Inflation (15%)	\$ 44,818	\$ 22,859
<u>Total FY 91</u>	<u>\$ 343,607</u>	<u>\$ 175,250</u>

FY 92

A. In-Country

Team leader, local contractor, 3 person-months	\$ 36,168	
MBAs and other specialists, local contractor	\$ 51,480	
3 Kellogg MBAs, 3 x 2 pm (subsistence only)	\$ 21,000	\$ 9,000
technical experts, 4 pm (preference from region)		\$ 56,992
8 rd trips per diem	\$ 23,160	\$ 8,000

supplies	\$ 20,000	\$ 10,000
hotel seminar rooms	\$ 20,000	
subsistence for out-of-town participants	\$ 20,000	
local trg instit expenses	\$ 48,000	
misc expenses (10%)	\$ 23,981	\$ 8,399
Subtotal	<u>\$ 263,789</u>	<u>\$ 92,391</u>
B. 4 U.S. short-term courses		\$ 40,000
C. 5 Third-country short courses		\$ 20,000
D. HRDA Coordination	\$ 35,000	
Inflation (20%)	\$ 59,758	\$ 30,478
<u>Total FY 92</u>	<u>\$ 358,547</u>	<u>\$ 182,869</u>

ANNEXES

ASSESSMENT METHODOLOGY

The purpose of the private sector training needs assessment was to define, with the USAID mission, a multi-year training plan to promote human resources development within the private sector.

A two-person assessment team was assigned to Sudan: a specialist in private sector analysis and a specialist in management training. The assessment was completed in three weeks, using the following methodology:

1. Literature search

Literature on the local private sector, recent economic analyses and employment/education studies were reviewed. The most useful non-AID sources of information were studies by the ILO and the World Bank (see bibliography in Annex 6).

2. Contacts with private businessmen and support institutions.

Although there is not yet a Private Sector Steering Committee, the team met four times with the Sudanese Industries Association, which will play a leading role in the proposed Committee.

A tight schedule of meetings during Week 1 and 2 was organized by the Mission's Training Office with officials from the Sudanese Businessmen & Employers Federation, Sudan Academy for Administrative Science, University of Khartoum, Management Development Center, University of Gezira, Ahfad University, Sudan Chamber of Commerce, Ministry of Planning, Sudan Gezira Board, National Training Administration, Ministry of Agriculture, Ministry of Health, Higher Education Grants Committee, and all major donors.

3. Interviews with representative sample of private businesses

During Week 2 - 3, twenty-six interviews were conducted using a questionnaire developed by AFR/TR/ENR. The questionnaires were administered in most cases to the owner or general manager, and lasted about an hour. The needs assessment questionnaire is attached as Annex 2, the breakdown of answers as Annex 3, and a list of all persons interviewed as Annex 4.

Interviews were conducted mainly with small and medium-sized manufacturing firms (median size 50 employees) with units in urban and rural areas. Firms were suggested by the Sudanese Industries Association, USAID,

and the US Embassy. Some firms interviewed also suggested other firms. A USAID Training Officer accompanied the team on most interviews.

4. Tabulation of questionnaire results and review of preliminary conclusions

The assessment team regularly reviewed results of interviews and discussed impressions with USAID staff. In the middle of Week 3, results obtained from the interviews were tabulated by computer using Supercalc 3. Preliminary conclusions were prepared for a final meeting with the Sudanese Industries Association on Wednesday of Week 3. This allowed for feedback from the Association on the nature of the proposed training.

5. Preparation of private sector training plan

Prior to departure, the team submitted a final draft of the private sector training plan covering FY 88 - FY 92. This plan was reviewed with the Mission Director in an exit interview. It was agreed that the mission would review the plan in detail and would submit modifications to AFR/TR/EHR.

6. Follow-up

AFR/TR/EHR will backstop project requirements, e.g., identifying resources, and assisting in identifying resources outside of the Sudan.

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COMPANY CODE: _____

DATE: _____

INTERVIEWER: _____

QUESTIONNAIRE FOR PRIVATE SECTOR TRAINING NEEDS ASSESSMENT

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS/PHONE: _____

A. YOUR COMPANY

1. Which best describes your business: _____ Textile and clothing
 _____ Metals
 _____ Plastics
 _____ Shoes and Leather
 _____ Chemical & Pharmaceutical
 _____ Agriculture & Food Processing
 _____ Construction
 _____ Transport
 _____ Services
 _____ Trade
2. Are you _____ owner _____ senior manager _____ manager _____ other
3. Is your company _____ private, family owned
 _____ private, partnership or non-family shareholders
 _____ joint venture (private/public)
 _____ joint venture
4. % sales exported _____%
5. Is the technology involved in your company _____ high _____ average _____ low
6. Is your enterprise _____ capital intensive _____ labor intensive _____ neither
7. Who is your competition _____ local firms
 _____ imported goods
 _____ government
 _____ no competition (monopolies)
8. Is competition _____ strong _____ average _____ none
9. What are the major constraints to expanding your business?
 _____ imported supplies + equipment _____ credit _____ need for trained personnel
 _____ local supplies _____ market size _____ economic factors
 _____ need for better management - sales/marketing
10. How long has your company been in business? _____
11. What other businesses do you own? _____

B. YOUR PERSONNEL

- 1. How many employees in your business ___ part-time ___ full time
- 2. How many managers ___ (if appropriate, classify senior, middle, lower)
- 3. How many employees have a secondary school diploma ___
- 4. How many have a college degree ___
- 5. How many have formal business training ___
- 6. How many employees are women ___

C. OWNER/SENIOR MANAGER'S PROFILE

- 1.. What is your level of education ___ secondary school (diploma? ___)
 ___ university (diploma? ___)
 ___ specialized training (type ___)
- 2. How many years of business experience do you have ___
- 3. What are your personal training needs (rank 5 highest to 1 lowest)

___ general management ___ financial management ___ marketing/sales
 ___ accounting ___ purchasing ___ management information (computers)
 ___ manufacturing ___ repair/maintenance ___ business law
 ___ other (Specify: _____)

- 4. How much time could you devote to training ___ per week ___ per year
- 5. How much money would you be willing to pay?
- 6. What is your annual training budget ___
- 7. What format is most interesting: ___ 1 evening/week for 3 hours for 4 wks
 ___ seminar Friday pm/Saturday am
 ___ 2 nights/week for 3 hours x 4 weeks
 ___ one on one consultancy
 ___ in company training
 ___ other (specify _____)

D. MANAGEMENT TEAM PROFILE

- 1. What is the level of education of most of your managers ___ high school
 ___ university
 ___ specialized training
- 2. How many years managers' typical training needs? (rank highest 5, lowest 1)

___ general manager ___ financial management ___ marketing/sales
 ___ accounting ___ purchasing ___ management information (computers)
 ___ manufacturing ___ repair/maintenance ___ other (specify _____)

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ANSWERS TO NEEDS-ASSESSMENT QUESTIONNAIRE

During the assessment, twenty-six firms were interviewed with units in Khartoum, Khartoum North, Omderman, Wad Medani, Kosti, Sennar, Kassala, and Shendi. The following describes some aspects of the sample.

1. Age of company: Range: 3 months - 43 years
Average: 14 years

(Companies often evolve through many stages. Most manufacturers start out as traders, and thus have more years of experience leading up to the current stage. Also, many of the family businesses have operated in different forms for many generations.)

2. Sector:
- | | |
|------------------------------|-----|
| Chemical and Pharmaceutical: | 23% |
| Food Processing and Agric.: | 19% |
| Textiles & Clothing: | 19% |
| Metal and Plastics: | 16% |
| Trade and Services: | 15% |
| Shoes and Leather: | 8% |

(Firms in two categories were apportioned based on sales)

3. Person interviewed:
- | | |
|------------|-----|
| Owner: | 37% |
| Gen'l Mgr: | 41% |
| Other Mgr: | 23% |

(When more than one person interviewed, senior-most one indicated)

4. Ownership:
- | | |
|---------------------------------------|-----|
| Private, family: | 68% |
| Private, partners
or shareholders: | 8% |
| Joint ventures- | |
| Public/Private: | 4% |
| Private/Foreign: | 19% |

Percentage of above mfg. under foreign license: 27%

5. % of sales exported: Average of firms exporting: 28%

(Only three sample firms claimed to be exporting products through official channels, and one was purely a trading company. Some firms have negotiated with the Sudan Government barter arrangements where they export agricultural or mineral commodities, and use the proceeds to import raw materials. Others have separate export companies where they effectively do the same thing unofficially. Many manufactured products are smuggled into

bordering countries, and on to Central African Republic, Niger, and Chad, and paid for by other goods smuggled into Sudan from these countries)

6. Level of Technology: High: 12%
 Average: 33%
 Low: 56%

(Despite high unemployment in the Sudan, some firms use semi-automated machines because workers are scarce during harvest seasons, because these machines cause less spoilage of scarce imported inputs like bottles, and because in the past foreign exchange was available at a low official rate. One firm said labor is scarce when goods are scarce through official retail channels, and laborers shift to profitable black-market activities. That firm keeps semi-automated machinery in reserve to use during those periods. Another firm claimed it could only hire workers through the Government labor bureau, which rarely had any workers for hire. The firm had to recruit its own workers, help them fill in the labor office paperwork to register, and then hire them from the labor office.)

7. Labor intensive firms: 81%
 Capital intensive firms 19%

(When laborers are available, most firms prefer labor-intensive lines because of the shortage of skilled technicians to repair and maintain sophisticated machinery)

8. Capacity utilization: Average 38%

(Actual capacity utilization is almost certainly lower than firms reported; most factories were only operating one shift, and in many firms more than half the work stations were vacant during our factory tours. The main reason for low utilization is because of recent severe supply constraints. Many respondents had to shut down production during the past year for up to eight months. One firm closed down for 4 years. Yet they still need their large capacities, since government often allocates scarce raw materials on a percentage of capacity basis; thus, all firms may get 40% of what they require, so the larger their capacity, the larger their requirements, the more they get, and the more they have to sell.)

9. Type of competition: local manufacturers: 60%
 imported goods: 36%
 government: 4%

10. Level of competition: High: 31%
Average: 46%
Low: 23%

(The greatest competition is for local supplies and imported inputs. Nearly all firms can sell everything they produce because of these supply constraints, coupled with price controls.)

11. Principal constraints to business development

In order of priority:

Imported supplies and equipment - 53%

(There are chronic shortages of essential inputs because import licenses and foreign exchange are not available or are prohibitively costly.)

Skilled labor - 23%

(Lucrative opportunities in the Gulf, and with international aid agencies, and in illegal black-market activities, all drain skilled workers from manufacturing. There are also restrictions on employing women; for example, they can't work after 8 pm.)

Local Supplies - 14%

(Local supplies are short because of inefficient parastatals, and/or because of suppliers' shortages of essential imported inputs and spare parts.)

Other constraints - 10%

(The general economic situation, government regulations, high cost structure which prevents exporting, marketing, product design, unreliable power and transport system.)

12. Number of full-time employees: Range: 4 - 6,000
Median: 50
Women employees: Average - 10%

(Although most firms were SMEs with less than 150 employees, five larger firms were also interviewed. Because of the extraordinarily poor economic situation, it was felt that certain large firms might be considered for HRDP training.)

13. Managers as percentage of total employees: 3%

(This low ratio of managers to employees reflects the centralization of decisionmaking in sample firms. Only four firms had any woman manager, two of which were owned

by women, and an additional five firms had women technical staff.)

14. % employees with secondary school education, either academic or technical: 20%

(Educational percentages are deceptive because there is such variation in quality. Many said that primary school graduates of the past were better educated than present secondary graduates, and past secondary ones better than today's university graduates. Problems include deteriorating standards, and increasing numbers of workers from relatively poor-quality, rural schools.)

15. % employees with college or university education, including Khartoum Polytechnic: 2%

16. % of firms with any employees with college or post-graduate training in business: 42%

17. Profile of Owner/General Manager:

73% had college or university degrees, and about half of these had specialized, post graduate training as well. 15% had secondary education, and 12% primary or intermediate school only.

On the average they were 44 years old with 15 years of business experience. 12% had participated in overseas seminars, business trips, or other training. Prior to their position in the sample firms, most had worked in other businesses, and some also in government.

TRAINING NEEDS

62% indicated a personal need for training The remainder felt they had no time for training, and wanted to give the opportunity to their staff.

Areas of greatest need:	<u>general management:</u>	33%
	<u>financial management</u>	
	<u>and costing:</u>	24%
	production planning:	14%
	marketing, sales and	
	product design:	14%
personnel management,		
	purchasing, English:	16%

57% of those seeking training could spend 3 nights a week. 29% would prefer 1 - 3 months of full-time training in the Sudan, and 14% would prefer overseas courses or study tours. One respondent claimed that USAID had offered him a year-long course at Princeton, but he declined because he couldn't afford the time and wouldn't be able to bring his family. Unlike government trainees, private sector

participants don't receive air tickets from their employer for their families, and don't receive their local salary in hard currency at the rate of \$2.78=LS1. Therefore, the incentive structure doesn't encourage long-term training in the private sector.

Most are willing to pay for training, and frequently mentioned LS 1,000 (\$224) as a reasonable fee for 40 hours of training in evening seminars.

18. Profile of middle-managers

63% have college or university degrees, 33% secondary degrees, and 4% primary or intermediate education. They have an average 7 years experience, with a range of 3 months to 50 years. 25% of the firms have trained at least one middle manager, through the following channels:

foreign partner sponsored courses, overseas:	60%
overseas tour, funded by firm:	14%
Management Development Center	14%
donor-funded courses, overseas:	11%

TRAINING NEEDS

93% of the respondents indicated a need to train their middle managers in the following areas, in order of priority:

management accounting, financ mgmt, costing:	25%
production planning, mgmt. and control:	22%
general management:	16%
marketing and sales:	11%
product design:	6%
computers:	5%
storekeeping:	4%
repair/maintenance:	4%
office management:	2%

Nearly all firms were prepared to pay for training their middle managers. 16% would train 1-2 at a time. Firms would train an average of 4 managers each. The preferred format is:

3 evenings a week:	50%
2-6 weeks, full time:	39%
on-the-job:	10%
diploma course:	1%

19. Profile of Workers.

Most have only a primary or intermediate level education and an average 6 years of work experience. Although the numbers with intermediate and secondary schooling are increasing, the educational quality may be declining as industrial workers increasingly come from poor rural schools.

57% of the respondents would pay for training for their workers, with greatest interest in training technicians and technical staff. Priority areas for training were:

repair, maintenance & operations:	37%
good manufacturing practice:	13%
mgmt. audit, purchasing:	12%
storekeeping:	10%
workshop skills:	10%
computers:	8%
sewing	6%
understanding business environment:	5%

Preferred format for training is:

on-the-job:	45%
3 evenings a week:	27%
4-12 weeks full time:	27%

20. Experience with local training institutes

Nine of the firms have used local training institutes. Four had used the Management Development Center, and one each the University of Gezira, Computer Man, the Food Research Center, the Center for Research and Development Studies, and the University of Khartoum.

21. Annual sales, 1987

range: 0 - LS 70 million (\$0 - 15.7 million)

median: LS 3.5 million (\$787,000)

22. Increase/decrease in sales over past three years

Average for firms reporting increases: +40% p.a. (compared with 30% p.a. inflation)

6 sample firms reported flat or declining sales.

23. Prognosis for the firm:	33% excellent
	31% good
	38% fair

PERSONS INTERVIEWED

USAID Sudan

Mr. John W. Koehring, Mission Director
Mr. Blaine Jenson, Program Officer
Mr. Dirk Dijkerman, Economic Officer
Ms. Awatif Farag, Training Specialist
Mr. Mekki A/Rahman, Training Assistant
Mr. Shereif Affan, Training Assistant

U.S. Embassy

Ms. Krystin L. Buckey, Economic Officer
Mr. El Fatih M. A. Idris, Commercial Assistant

Private Companies and Business Organizations

Mr. Osman A. Abukashawa, Director General, Sudanese Businessmen & Employers Federation
Mr. Yousif Zaki Sid Ahmed, Chairman, Wafir International Co., Ltd.
Eng. M. Tag, Technical Director, and Abdullai Tag, Production Engineer, Tag Cosmetics & Toiletries Ltd.
Mr. Sid Ahmed, board member, Pepsi Cola (bottlers) and Chairman, Sudanese Industries Association (SIA)
Mr. Haroun El Awad, Sudan Chamber of Commerce
Mr. Hardeep Grewal, General Manager, Pioneer Seed Co. Ltd. (seed research and production)
Mr. Kamal Erwa, Chairman, Taka Trailers Co. Ltd. (trailer mfg.)
Mr. Hassab El R. M. Eltayeb, Managing Partner, Hassabo & Co. (accountants)
Mrs. Margaret A. Dijkerman, Manager, Hassabo & Co.
Mr. Nilesh P. Patwa, Manager, Hassabo & Co.
Dr. Zuheir K. Saeed, Production Manager, Saeed Food Factory
Mr. A. Azeem I. Yagoub, General Manager, Blue Nile Perfumery Co.
Mr. Mustafa A. H. Haidi, Chairman, Omderman Readymade Clothes Factory and Owner and General Manager, El Rahab Sweets Factory
Mr. Abdel Mohammed Ahmed, Personnel Officer, National Plastic Industries
Mr. S. H. Mohammed, Ag. General Manager, Salim Tanneries
Mr. Ahmed Osman, Chief Engineer and Mr. Osman Ahmed Iman, Owner and General Manager, Iman Plastics and Toys
Mr. Haider Yagoub, General Manager, River Nile Co. (trading)
Mr. Al Amin Al Nour, Owner and president, Bahri Asbestos Co. (pipes)
Mr. A/Hameed Mohd. A. Hameed, Deputy General Manager, Kassala Fruit Co.
Mr. Gamal Idris, Managing Director, Sharaf Chemical Industries Co., Ltd. (toothpaste)
Dr. A. El Bedawi M. E. Hamid, Managing Director, Amipharma Laboratories, Ltd. (pharmaceuticals)

50'

- Mr. Mohamed Hamid Adam, Training Manager, A/Rahman H. A/Rahman, Chairman, Investment Department, Artisans Branch, and Mustafa Almahi Mustafa, Manager, Artisans Branch, Faisal Islamic Bank.
- Mr. Baha Eldin Abdelhamid, Chairman and Managing Director, and Dr. Angelo Tanfani, Technical Adviser and Secretary, Sigma-tau Sudan Ltd. (pharmaceuticals)
- Mr. Mohammed El Tigani Hilal, General Manager, Hilal Footwear Co.
- Mr. Abd Elmoneim Hassanein Yousif, Managing Director and General Manager, Sudan Textiles Industry Ltd.
- Mr. Mohamed Mustafa Saad, Asst. General Manager, Sudan All Wear.
- Ms. Katmalla Isag Ali, Owner, and Ms. Munira Abdel Farrag, PR manager, El Moktar Fashion Factory.
- Ms. Fredose Abdella Arifi, Owner, Amira Teriat House (clothing)
- Mr. Suliman Salih Khider, Owner, International Perfume & Toilet Industries Co.
- Ms. Salwa Ibbrahim, Manager, Sudaniya Crafts

Training Institutions

- Mrs. Fawzia Harmour, Development Studies and Research Center, University of Khartoum
- Prof. Abdelkarim Yacoub, Director General, Sudan Academy for Administrative Science
- Prof. Ibrahim Aboul, Sudan Academy for Administrative Sciences
- Dr. Ismail E. Suleiman, Head, Consulting and Training Unit, School of Management Studies, School of Business and Administrative Sciences, University of Khartoum
- Dr. Ahmed Hamza Khalifa, Dean, School of Management Studies (SMS), School of Business and Administrative Sciences, University of Khartoum
- Dr. Bakri A/Rahim Beshir, Head, Department of Accounting and Finance, SMS
- Dr. Mohammed Abd. El Kamid Mohd., Director General, Management Development Center
- Professor Mirghani A. Kammour, Vice-Chancellor, University of Gezira
- Dr. Hassan Musa Yousif, Director, Population Studies Centre, University of Gezira, Wad Medani
- Prof. Hashim Obeid Hassan, Director, Khartoum Polytechnic
- Dr. Gasim Badri, Dean, Ahfad University
- Dr. Amna Badri, Head, School of Organizational Management, Ahfad University
- Mrs. Awatif Mustafa, Director of Studies, Ahfad University
- Ms. Micolin Wassner, Head, School of Family Studies, Ahfad University
- Prof. Ismail A. Ismail, Deputy Director, Khartoum Polytechnic
- Paul Doornbos, Project Leader, ISS/DSRC Project, University of Khartoum
- Dr. Paul Wani Gore, Short-Course Director, ISS/DSRC, University of Khartoum
- Dr. M.S. Imbabi, Faculty of Science and Technology, University of Gezira
- Prof. Salah Taha, Dean, Faculty of Medicine, University of Gezira

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Other Government Officials

Dr. Mahasin Khidir El Sayed, Deputy Undersecretary for
Industrial Development, Ministry of Planning
Ahd. El Badawi Mohd., Head, Social Economic Research Unit,
Sudan Gezira Board, Barakat
Mr. Murad Abbas Mustapha, Ag. Director General, National
Training Administration
Mr. El Sheikh, External Relations Division, Ministry of Finance
and Planning
Mr. Albagi, Training Officer, Ministry of Agriculture
Dr. Ahmed Hassan, Training Officer, Ministry of Health
Mr. Irahim A/Bassil, Ag. Director, Higher Education Grants
Committee
Mr. Idris El Nayal, Ass't. Director, Higher Education Grants
Committee

Donors/Projects

Ms. Jette Jensen, UNIDO, Vienna
Mr. J. M. de Caldas Lima, UNIDO, Vienna
Mr. Iqbal, Resident Representative, UNIDO, Khartoum
Ms. Heike Aminont, CIM, seconded to SIA
Mr. Liuga Faumai, Ass't. Residential Rep., UNDP
Ms. Fathia Abdalla, Fellowship Officer, UNDP
Mr. Peter Schuman, Division III Head, UNDP
Mr. Klaus R. Mock, Program Officer, ILO Liaison
Ms. Rosemary Hilhorst, Ass't. Rep., The British Council
Ms. Nadia Abdalla, Training Ass't., EEC Delegation
Dr. Leena M. Kirjavainen, Project Coordinator, FAO
Mr. Peter Valks, Third Secretary, Royal Netherlands Embassy
Ms. Christiane Bogemann-Hagedorn, Development Aid Cooperation,
Embassy of the Federal Republic of Germany
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February 19, 1988

Dear Africa Mission Director,

At the suggestion of Bud Munson, director of AER, we are sending you this information about the Northwestern University International Internship Program, which offers the services of graduate management, law and engineering students during the summer months.

Details about the program are contained in the enclosed brochure. As you may know, past Northwestern interns have successfully completed projects for AID mission in Kenya, Swaziland, and Tanzania. Their assignments were diverse and represent the wide range of backgrounds and skills to be found in our applicant pool. For example, an MBA student with a degree in nursing conducted a study of rural health clinics in Swaziland and then made recommendations for implementing the AID Primary Health Care Project. A professional librarian now studying management established a library record system, using an Apple II microcomputer, for the AID TRD project in Tanzania. Three interns with microcomputer skills served as technical consultants to the Kenya Ministry of Planning and National Development, developing and administering a microcomputer training program in district offices.

Normally, firms are asked to pay a fee to Northwestern University of \$6,500 for an intern to spend two months on the job. This fee covers stipend, travel expenses, and insurance, and helps defray orientation and program costs. For developing country situations, this procedure can be modified as needed; for example, the intern may be paid an appropriate stipend in local currency. Funding is available from a Department of Education grant to partially underwrite some internships.

We encourage you to contact us as soon as possible to explore internship possibilities at your mission or at indigenous organizations. We will be happy to mail, telex or FAX your resumes of law, engineering, or management students appropriate for the project you describe, and will arrange telephone interviews if you would like. A prompt response will help ensure the availability of an intern with the skills you require. I will be happy to provide further information and to work out special arrangements to fit your situation.

Sincerely,



Barbara Collins
Assistant Director
International Internship Program

BC/me

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list off lastname,firstname,sex,position,city,trngobj,retndate for	employer='MINISTRY OF AGRIC'					
lastname	firstname	sex	position	city	trngobj	retndate
ABDEL RAHMAN	WIDAD	F	AGRIC. INSPECTOR	KHARTOUM	CERT	01/17/86
ABU ZEID	HASSAN	M	DIR OF AGR PLANN & ADMNTM	KHARTOUM	CERT	01/27/82
ABU ZEID	HASSAN	M	DIR OF AGR ECO & STAT ADM	KHARTOUM	CERT	04/17/83
ADAM	BURAIE	M		KHARTOUM	CERT	04/04/83
ADAM	IBRAHIM	M	AGR ECONOMIST	KHARTOUM	CERT	07/21/86
AHMED	MJKHTAR	M	SENIOR AGR STATISTICIAN	KHARTOUM	CERT	08/02/87
EL BASHIR	HASSAN	M			CERT	07/21/86
EL BASHIR	HASSAN	M	HEAD OF STATISTICS DEPT.	KHARTOUM	CERT	07/21/86
EL FADIL	SAMIR	M	AGR ECONOMIST	KHARTOUM	CERT	11/30/99
EL FADIL	SAMIR	M	AGR ECONOMIST	KHARTOUM	MS	01/15/87
EL HANAN	MOHAMED	M	HEAD AGR PROD CENTER	KHARTOUM	CERT	04/04/83
EL HASSAN	NAGAT	F	PLANNING INSPECTOR	KHARTOUM	CERT	01/17/86
EL NAEIM	ABDEL GADIR	M	AGRIC. ECONOMIST	KHARTOUM	CERT	06/03/86
EL OBEID	HASSAN	M	AGRIC.PLANNING INSPECTOR	KHARTOUM	CERT	02/01/86
EL SHEIKH	ABDEL MONEIM	M	DIR OF PLANN & STATSTAT	KHARTOUM	CVERT	07/08/84
EL WIDAA	IHSAN	F	AGRIC INSPECTOR	KHARTOUM	CERT	11/03/84
ELWIDAA	IHSAN	F			CERT	11/03/84
HAG EL AGIB	AFAF	F	FIELD OFFICER	KHARTOUM	CERT	08/05/85
HASSAN SHUMO	FAROUK	M	INSPECTOR	KHARTOUM	DIP	01/09/83
HUSSEIN	ABDEL GHANI	M	TECHNICIAN	KHARTOUM	DIP	08/25/86
IBRAHIM	ISAM EL DIN	M	AGR ECONOMIST	KHARTOUM	CERT	11/30/99
IBRAHIM	ISAM EL DIN	M	AGR ECONOMIST	KHARTOUM	MS	01/15/87
KHALIL	ABDEL RAHMAN	M	TECHNICIAN	KHARTOUM	DIP	08/25/86
MANSOUR	SHOUHDI	M	FINANCIAL INSPECTOR	KHARTOUM	CERT	01/17/86
MOHAMED	MOHAMED	M	AGR ECO AND COMP OPERATOR	KHARTOUM	DIP	09/15/84
MORGAN	AMAL	F	HEAD AGR STAT DIVISION	KHARTOUM	CERT	06/03/84
MURGAN	AMAL	F	HEAD OF PUBL & DOCUMENT	KHARTOUM	CERT	07/21/86
OSMAN	HAYATI	M	AGRIC INSPECTOR	KHARTOUM	CERT	01/02/84
SID AHMED	ZAIDAN	M	HEAD, DOCUMENTATION SECT.	KHARTOUM	MS	01/05/84
SOMAR EL DAHAB	MOHAMED	M	SENIOR INSPECTOR	KHARTOUM	CERT	06/03/86
MOHAMED	MOHAMED	M	COMPUTER SECTION SUPERVIS	KHARTOUM	CERT	10/15/87
SULIMAN	ABU EL GASIM	M	DIR FORESTRY DEPT	KHARTOUM	CERT	10/30/87
ABU ZAID	HASSAN	M	DIR DEPT OF AGR ECO & STA	KHARTOUM	CERT	04/10/83
ALI	MOHAMED	M	SESAME PROJECT MANAGER	KHARTOUM	MS	12/03/80
BAKHJET	AHMED	M	AGRIC.ECON.INSPECTOR	KHARTOUM	MS	08/24/82
BEDRI	OSMAN	M	AGRIC ECONOMIST	KHARTOUM	MS	09/10/79
EL DOR	SHEIKH EL DIN	M	AGR EXT INSPECTOR	KHARTOUM	MS	04/01/79
EL HAG	BEDR EL DIN	M	MANAG MALAKAL RICE SCHEME	MALAKAL	MS	09/27/79
GHALY	MAGDI	M	GAME OFFICER	KHARTOUM	MS	10/30/80
HASSAN	HASSAN	M	HEAD OF PROG PLANN & RES	KHARTOUM	PHD	08/30/84
IBRAHIM	EL AMIN	M	AGR EXT OFFICER	KHARTOUM	MS	06/15/79
IDRIS	TAG EL SIR	M	LIVESTOCK OFFICER	KHARTOUM	MS	08/22/80
MAHMOUD	AHMED	M	AGRIC. ENGINEER	KHARTOUM	MS	06/02/83
MORGAN	ALAA EL DIN	M	SENIOR HORTICULTURE INSP	KHARTOUM	MS	09/24/82
SULIMAN	SAEED	M	PLANT PROT INSPECTOR	KHARTOUM	MS	02/01/80
WAGILLA	NIEMAT	F	RURAL INSPECTOR	KHARTOUM	CERT	08/29/80
ZEIN EL ABDIN	MOHAMED	M	CROP PROTECTION OFFICER	KHARTOUM	MS	03/01/80

list off lastname,firstname,sex,position,city,trngobj,retndate for	employer='REG MIN OF AGRIC'					
lastname	firstname	sex	position	city	trngobj	retndate
BASSAN	FRANCIS	M	ASSIST DIR OF TRG	JUBA	MS	09/15/84
KAZMIRO	ROBERT	M	HEAD,HORTICULTURE DEVISIN	JABA	MS	09/14/82
LOYOLALA	CAESAR	M	HEAD,HORTICULTURE DEV	JUBA	MS	12/23/81
HANI	EZBON	M	ASST CONSERVATOR OF FORES	JUBA	MS	01/11/82
AGAR	MICHAEL	M	SENIOR PLANNING INSPECTOR	RUMBEX	CERT	07/25/85

list off lastname,firstname,sex,position,city,trngobj,retndate for	employer='REG MIN OF AGR, JUBA'					
lastname	firstname	sex	position	city	trngobj	retndate
AKOCH	FIDELE	M	AGRIC STATISTICIAN	JUBA	CERT	08/22/84
BINYASON	SAMPSON	M	ASSIST DIR FOR RESEARCH	JUBA	CERT	09/17/83
GALLA	JAMES	M	DIR OF ADMINISTRATION	KHARTOUM	CERT	02/26/84

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. list off lastname,firstname,sex,position,city,training,retndate for employer='MOA DEPT OF ECON'
lastname      firstname      sex  position      city      training  retndate
TAHER         FARID          M    SENIOR AGR ECONOMIST      KHARTOUM  PHD      11/30/99

. list off lastname,firstname,sex,position,city,training,retndate for employer='MOA SOIL SURVEY ADMIN'
lastname      firstname      sex  position      city      training  retndate
AHMED        ABDEL MONEIM  M    A/DIRECTOR      WAD MEDANI  CERT     10/19/87

. list off lastname,firstname,sex,position,city,training,retndate for employer='MOA FOOD RESEARCH CENT'
lastname      firstname      sex  position      city      training  retndate
MOHAMED      BABIKER       M    DIRECTOR        KHARTOUM NORTH  CERT     07/15/85

. list off lastname,firstname,sex,position,city,training,retndate for employer='AGRIC RESEARCH CORP'
lastname      firstname      sex  position      city      training  retndate
DINNAR       HASSAN        M    HORTICULTURIST      EDDAMER     CERT     01/22/84
EL AWAD      HASSAN        M    AGRONOMIST        WAD MEDANI  PHD      10/15/84
IBRAHIM      MOHAMED       M    ASSISTANT RECH SCIENTIST  WAD MEDANI  MS       06/17/85
BALLA        AHMED         M    NAT'L COORD FOR ENTOMOLOY  WAD MEDANI  CERT     03/17/85
ISHAG        HASSAN        M    DIRECTOR          WAD MEDANI  CERT     07/15/85
EL FADL      MOHAMED       M    FORESTRY RESEARCHER  KHARTOUM    CERT     06/25/85
EL KHALIFA  FATHI         M    RESEARCH SCIENTIST  KHARTOUM    CERT     08/08/81
SHEIKH MOHAMED  ABDALLA      M    ASSIST RES SCIENTIST  WAD MEDANI  MS       08/28/82
IBRAHIM      MOHAMED       M    RESEARCH SCIENTIST  YAMBIO      MS       06/17/85
LOGGALE     LAKO          M    ASSIST SCIENTIST    YAMBIO      MS       06/17/85

. list off lastname,firstname,sex,position,city,training,retndate for employer='BNIADP'
lastname      firstname      sex  position      city      training  retndate
A/AZIZ       SIDDIQ        M    PROJECT DIRECTOR    DAMAZIN     CERT     08/17/83
A/LATIF      EL HADI       M    HEAD,MECHNIZATION SECT.  DAMAZIN     CERT     10/12/85
ABBAS        MOHAMED       M    AGRONOMIST        DAMAZIN     MS       02/03/85
ABU HARAZ    HASSAN        M    DEPUTY DIRECTOR    DAMAZIN     CERT     11/17/84
ABU SAC      AHMED         M    RANGE MGMT OFFICER  DAMAZIN     CERT     08/01/85
AHMED        OMER          M    DIRECTOR,ABU SHINENA DEV.  DAMAZIN     CERT     07/28/85
AKASHA       FAROUK        M    HEAD, LIVESTOCK     DAMAZIN     CERT     07/31/83
BASHIR       EL GASIM      M    FIELD AGRIC. ENGINEER  DAMAZIN     CERT     12/01/84
EL TOM       YOUSIF        M    AGR EXT OFFICER    DAMAZIN     CERT     03/11/83
FARAH        AWAD          M    AGRIC ECONOMIST    DAMAZIN     CERT     11/30/99
FARAH        AWAD          M    AGRIC ECONOMIST    DAMAZIN     MS       12/31/86
FARAH        AWAD          M    AGRIC. ECONOMIST    DAMAZIN     CERT     07/27/83
HUSSEIN      YOUSIF        M    SENIOR AGRIC. INSPECTOR  DAMAZIN     CERT     09/19/83
MABROUK      MOHAMED       M    MONIT. PLANNING OFFICER  DAMAZIN     CERT     07/27/83
MABROUK      MOHAMED       M    HEAD,PLANNING,MONIT.SECT  DAMAZIN     CERT     07/29/85
MOHAMED      A/BADEI      M    AGRIC. TECHICIAN    DAMAZIN     CERT     08/15/83
MOHAMED      ANATIF       F    WOMEN'S EXTENSION OFFICER  DAMAZIN     BS       12/20/85
MOHAMED ADAM  MOHAMED       M    SENIOR EXTENSION INSPECTR  DAMAZIN     MS       10/09/85
MOHAMED ALI  MOHAMED       M    HEAD,COOP.CREDIT SECT.  DAMAZIN     CERT     08/05/85
OSMAN        AHMED         M    AGRIC. EXTENSION OFFICER  DAMAZIN     CERT     09/01/83
RAHAMA       MOHAMED       M    AGR EXTENSION OFFICER  DAMAZIN     CERT     03/29/85
SHOMO        HASHIM        M    SENIOR AGRIC. MECHANIC  DAMAZIN     CERT     12/01/84
YOUSIF       OSMAN         M    AGRIC. INSPECTOR    KHARTOUM    CERT     03/03/85

. list off lastname,firstname,sex,position,city,training,retndate for employer='RAHAD AGRIC CORP'
lastname      firstname      sex  position      city      training  retndate
IBRAHIM      IBRAHIM       M    D/DIR          KHARTOUM    CERT     05/08/83
ABDEL MUTALIB  BADR EL DIN  M    HEAD OF FORESTRY DEPT  FAO         CERT     07/05/87
IBRAHIM      HAMD          M    ASST BLOCK INSPECTOR  P O BOX 2325  MS       06/05/84

. list off lastname,firstname,sex,position,city,training,retndate for employer='AGRIC BANK OF SUDAN'
lastname      firstname      sex  position      city      training  retndate
MUSTAFA      FATHI         M    MANAGER UMM RAWABA BRANCH  UMM RAWABA  CERT     12/19/82
DHAJ         ABDALLA      M    AGR INSPECTOR    KHARTOUM    CERT     07/30/84

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. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='WSARP'
lastname      firstname      sex  position      city      trngobj  retndate
AGEEB         ABDEL GADIR   M    ASSIST RESEARCHER  KADUGLI   MS       02/10/86
AGEEB         ABDEL GADIR   M    RESEARCH SCIENTIST  KHARTOUM NORTH  CERT    06/23/87
ALI           MERGHANI      M    RESEARCHER         ABU NEAAMA  CERT    08/26/85
BALAL         MOHAMED       M    GUM RESEARCH SPECIALIST  EL OBEID   CERT    06/16/87
BITEIK        SID AHMED     M    RESEARCH ASSIST     KADUGLI    MS       01/15/86
DAFALLA       BABO          M    SENIOR SCIENTIST RESEARCH  KHARTOUM   CERT    11/16/84
DAFALLA       DAFALLA       M    DIRECTOR            KHARTOUM   CERT    06/16/85
DAFALLA       DAFALLA       M    DIRECTOR            KHARTOUM   CERT    08/26/85
DAFALLA       DAFALLA       M    DIRECTOR            KHARTOUM   CERT    12/15/87
DAM EL MADINA  IBRAHIM      M    ASSIST SCIENTIST    KHARTOUM   MS       09/15/85
EID           MEKKI         M    LIBRARIAN ADMINISTRATOR  ELOBEID    CERT    07/22/85
EL AMIN       EL TIGHANI    M    RESEARCH SCIENTIST  KHARTOUM   PHD     05/15/87
EL DUKHERI    IBRAHIM      M    AGR EXT             KHARTOUM   MS       02/13/87
EL GASIM      EL HAG       M    RESEARCH SCIENTIST  KHARTOUM   CERT    08/30/83
EL HADI       FAROUG       M    RESEARCH SCIENTIST  EL OBEID   MS       11/15/87
EL HADI       FAROUG       M    RESEARCH SCIENTIST  EL OBEID   PHD     11/15/87
EL HAG       FAISAL       M    RESEARCH SCIENTIST  KAHARTOUM NORTH  CERT    06/23/87
EL WAKEEL     AHMED        M    RANGE RESEARCH SCIENTIST  KHARTOUM   PHD     07/25/86
EL WAKEEL     AHMED        M    RESEARCH SCIENTIST  KHARTOUM NORTH  CERT    06/23/87
HASHIM        IBRAHIM      M    RESEARCHER          KHARTOUM NORTH  CERT    06/23/87
IBRAHIM       BABIKER      M    ASSIST RESEARCH SCIENTIST  KHARTOUM   MS       02/20/85
IBRAHIM       BABIKER      M    RESEARCH SCIENTIST  EL OBEID    CERT    01/19/87
KANANI        MUKHTAR     M    DIR KADUGLI STATION  KADUGLI     CERT    06/27/82
KANANI        MUKHTAR     M    DIR KADUGLI STATION  KADUGLI     CERT    09/30/85
KURDI         OMER         M    RESEARCHER          EL OBEID    CERT    06/23/87
MADIBO        GAD EL KARIM M    ASSIST RESEARCH SCIENTIST  EL OBEID    PHD     07/10/86
MADIBO        GAD EL KARIM M    RESEARCH SCIENTIST  EL OBEID    CERT    01/19/87
MEKKI         MAHMOUD     M    ASSIST RESEARCH SCIENTIST  KADUGLI     MS       06/22/86
MOHAMED       BABO         M    SENIOR RESEARCH SCIENTIST  KADUGLI     CERT    09/25/83
MOHAMED       OSMAN       M    A/DIR FOR ADMINISTRATION  KHARTOUM   CERT    06/07/85
MUKHTAR      HASHIM       M    SENIOR RANGE SCIENTIST  EL OBEID    CERT    06/04/84
MUKHTAR      HASHIM       M    SENIOR SCIENT RANGE ECOLO  KHARTOUM NORTH  CERT    06/23/87
OMER         MEKKI        M    RESEARCH SCIENTIST  KHARTOUM   MS       12/20/87
OMER         MEKKI        M    RESEARCH SCIENTIST  KHARTOUM   PHD     12/30/87
OSMAN        ABDEL RAHMAN M    AGRONOMIST         EL OBEID    CERT    03/10/84
OSMAN        ADAM         M    RESEARCH SCIENTIST  SENNAR      CERT    12/02/85
OSMAN        OSMAN       M    RESEARCH SCIENTIST  SENNAR      CERT    01/22/84
OSMAN        OSMAN       M    RESEARCH SCIENTIST  SENNAR      CERT    12/17/84
RAHAMA       MUSTAFA     M    SENIOR RANGE SCIENTIST  KHARTOUM   PHD     / /
SAAD         ZAKARIA     M    DIR ELOBEID RESEARCH STAT  EL OBEID    CERT    05/20/84

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='MIN OF AGR,MECH FARMIN'
lastname      firstname      sex  position      city      trngobj  retndate
IBN OUF       MOHAMED AHMED M    INSPECTOR        KHARTOUM   PHD     10/21/85

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='MIN OF IRRIGATION'
lastname      firstname      sex  position      city      trngobj  retndate
ABDALLA      ABBAS         M    ENGINEER         KHARTOUM   CERT    05/29/84
BADR         AHMED         M    ENGINEERETARY    KHARTOUM   CERT    05/29/84

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='SUDAN GEZIRA BOARD'
lastname      firstname      sex  position      city      trngobj  retndate
OSMAN        GALAL         M    A/HEAD OF PLANT PROTECTIO  WAD MEDANI  CERT    03/17/85

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='YAMBIO AGR RES INST'
lastname      firstname      sex  position      city      trngobj  retndate
WANI         REUBEN        M    DIRECTOR         YAMBIO     CERT    06/29/82
IANI        EMANUAL       M    LECTURER        YAMBIO     MS       09/15/83

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COMMERCE, INDUSTRY, and PRIVATE BUSINESS

list off lastname,firstname,sex,position,city,trngobj,retndate for employer='MIN OF COMMERCE'							
astname	fstname	sex	position	city	trngobj	retndate	
BDALLA	SIDDIGA	F	SENIOR INSPECTOR	KHARTOUM	CERT	04/14/86	
HIHATA	DAISY	F	SENIOR INSPECTOR	KHARTOUM	CERT	04/14/86	
ULBA	SHAWGI	M	SENIOR INSPECTOR	KHARTOUM	CERT	04/14/86	
BRAHIM	GAMAR EL DIN	M	INSPECTOR	KHARTOUM	CERT	09/05/84	
FALIH	ABDEL AZIZ	M	FIRST INSPECTOR	KHARTOUM	CERT	09/05/84	
ANIM	ABDEL WAHAB	M	UNDERSECRETARYRETARY	KHARTOUM	CERT	04/10/83	
list off lastname,firstname,sex,position,city,trngobj,retndate for employer='MIN OF INDUSTRY'							
astname	fstname	sex	position	city	trngobj	retndate	
IDRIS	AWAD	M	ADVISOR			02/20/86	
EDANI	MANSOUR	M	MANG DIR OF F TEXTILE CO		CERT	07/30/86	
DHAMED	ABDEL MONEIM	M	MANAGER ACCOUNTING SECT		CERT	02/16/87	
DHAMED	RUGIA	F	SENIOR INSPECTOR		CERT	03/31/87	
EL YAMANI	IGBAL	F	D/DIR FOR FIN & INVEST	KHARTOUM	CERT	07/30/84	
list off lastname,firstname,sex,position,city,trngobj,retndate for employer='URBAN DESIGNERS CO'							
lastname	fstname	sex	position	city	trngobj	retndate	
QUSA MADIBO	ALI	M	ARCHITECT-URBAN DESIGNER	KHARTOUM	CERT	03/01/86	

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. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='TAXATION DEPT'

lastname	firstname	sex	position	city	tringobj	retndate
	EL HASSAN	IBRAHIM	M		CERT	05/23/86
ABDALLA	INAM	M	ASSIST UNDERSECRETARY	KHT	CERT	05/23/84

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='CHAMBER OF ZAKAT & TAX'

lastname	firstname	sex	position	city	tringobj	retndate
IDRIS	EL NUR	M	ASST DIR OF TAXATION	KHARTOUM	CERT	08/25/85
OSMAN	ABDEL BADIR	M	SENIOR INSP FOR RES & LEG	KHARTOUM	CERT	11/11/85
SID AHMED	FAROUK	M	ASST DIR OF TAXATION	KHARTOUM	CERT	07/26/85

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='CUSTOMS DEPT'

lastname	firstname	sex	position	city	tringobj	retndate
SALIB	MUNIR	M	DIR OF OPERATION SECTION	KHARTOUM	CERT	04/14/86
GISMALLA	EL HAG	M	TRAINING CONTROLLER	KHARTOUM	CERT	06/29/87

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EDUCATION and TRAINING

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='MIN OF EDUCATION'

lastname	firstname	sex	position	city	trngobj	retndate
MOHAMED NUR	OSMAN	M	DIR OF EDUCATIONAL STAT.	KHARTOUM	CERT	06/21/82
EL GDZOULI	SHAHWA	F	DIR,SCH GRDNG & NUTR EDUC	KHARTOUM	CERT	02/14/82
SATTI	AFAF	F	ASSIST DIR OF SCHLSHP	KHARTOUM	MA	07/12/87

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='UNIV OF KHARTOUM'

lastname	firstname	sex	position	city	trngobj	retndate
HAMID	YAHIA	M	ASSOCIATE PROF.	KHARTOUM	CERT	03/16/83
HAMID	YAHIA	M	CHAIRMAN OF ERC	KHARTOUM	CERT	12/15/83
MAGZOUN	EL SHEIKH	M	LECTURER	KHARTOUM	CERT	06/08/86
MAGZOUN	EL SHEIKH	M	LECTURER, MECH. ENGIN.	KHARTOUM	CERT	06/25/85
ADNAN	AMAL	F	LECTURER	KHARTOUM	CERT	11/30/82
EL BIELY	ALI	M	ASST. PRF.	KHARTOUM	CERT	06/06/85
EL SHIBLY	EL TAHIR	M	LECTURER	KHARTOUM	MPH	07/20/86
GERAIS	ABDEL SALAM	M	ASSOCIATE PROF	KHARTOUM	CERT	06/05/87
ABDEL SALAM	ABDEL RAHMAN	M	DIR,EDUCATION CENTERR	KHARTOUM	CERT	06/28/86
ZIAD	ABDEL RAHMAN	M	HEAD COMMUNITY MEDICINE	KHARTOUM	CERT	06/15/83
ABOUDA	SIR EL KHATIM	M	LECTURER	KHARTOUM	MS	09/10/82
ALIM	KAMAL	M	LECTURER	KHARTOUM	CERT	11/10/80
TAG EL SEED	MERGHANI	M	HEAD HYDRBLGCL RES UNIT	KHARTOUM	CERT	07/31/78
MAHMOUD	MOHAMED ALI	M	LECTURER	KHARTOUM	CERT	12/15/82
MOHAMED	EL SHEIKH	M	LECTURER	KHARTOUM	CERT	12/12/83

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='UNIV OF KHT,FAC OF MED'

lastname	firstname	sex	position	city	trngobj	retndate
RUSHWAN	HAMID	M	HEAD,OB/GYN DEPT	KHARTOUM	CERT	12/20/82
ABDEL RAHMAN	NADIA	F	SOCIAL WORK SUPERVISOR	KHARTOUM	CERT	06/18/81
ALI	HARITH	M	LECTURER	KHARTOUM	CERT	12/11/83
BASHIR	ILHAM	F	SOCIAL WORKER,DEPT COM ME	KHARTOUM	CERT	06/13/83
EL BUSHRA	HASSAN	M	TEACHING ASSIST	KHARTOUM	CERT	06/28/82
EL FATIH	MOHAMED	M	LECTURER (CDB PROG KHT)	KHARTOUM	CERT	11/09/86
EL NAIEM	EL TAYEB	M	LECTURER	KHARTOUM	CERT	06/05/83
EL TIGANI	AFAF	F	SOCIAL RESEARCHER,COM MED	KHARTOUM	CERT	06/28/82
EL TOM	NADIA	F	SOCIAL RESEARCHER,COM MED	KHARTOUM	CERT	06/28/82
KAROUM	HADDAD	M	LECTURER	KHARTOUM	CERT	06/28/86
RUSHWAN	HAMID	M	HEAD DEPT OF OB/GYN	KHARTOUM	CERT	12/11/83
RUSHWAN	HAMID	M	HEAD DEPT OF OB/GYN	KHARTOUM	CERT	06/28/86

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='UNIV OF KHT,FAC OF ECO'

lastname	firstname	sex	position	city	trngobj	retndate
EL SHIBLY	MEKKI	M	LECTURER RESEARCHER	KHARTOUM	CERT	07/06/83
GDRE	PAUL	M	LECTURER	KHARTOUM	CERT	06/04/83
GDRE	PAUL	M	LECTURER OF ANTHROPOLOGY	KHARTOUM	CERT	08/18/85
HAMAD	AHMED	M	LECTURER OF DEMOGRAPHY	KHARTOUM	CERT	08/18/85

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='UNIV OF KHT,FAC OF AG'

lastname	firstname	sex	position	city	trngobj	retndate
GDDA	SALAH EL DIN	M	HEAD DEPT OF AGRICULTURE	KHARTOUM NORTH	CERT	04/27/87

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='UNIV OF GEZIRA'

lastname	firstname	sex	position	city	trngobj	retndate
EL GORASHI	GAMAL	M	LECTURER IN PSYCHIATRY	WAD MEDANI	CERT	07/01/87
SALIH	MOHAMED	M	DEAN FACULTY	WAD MEDANI	CERT	12/20/82
ALI	MOHAMED	M	LECTURER	WAD MEDANI	CERT	06/05/83
ADEEP	ALI	M	TEACHING ASSIST	WAD MEDANI	MS	02/28/81
IBRAHIM	HASSAN	M	SSIST	WAD MEDANI	PHD	11/28/82

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='UNIV OF GEZIRA,FAC MED'

lastname	firstname	sex	position	city	trngobj	retndate
SALIH	MOHAMED	M	DEAN FACULTY	WAD MEDANI	CERT	12/20/82
ALI	MOHAMED	M	LECTURER	WAD MEDANI	CERT	06/05/83

. list off lastname, fstname, sex, position, city, trngobj, retn date for employer='AHFAD UNIV COLLEGE'						
lastname	fstname	sex	position	city	trngobj	retn date
RAHMA	AMNA	F	TEACHING ASSISTANT	KHARTOUM	MS	01/13/85
. list off lastname, fstname, sex, position, city, trngobj, retn date for employer='KHARTOUM POLYTECHNIC'						
lastname	fstname	sex	position	city	trngobj	retn date
ABDEL NOUR	HASSAN	M	DEPUTY HEAD, FORESTRY DIV	KHARTOUM	CERT	09/08/83
. list off lastname, fstname, sex, position, city, trngobj, retn date for employer='HIGHER ED GRANT COM'						
lastname	fstname	sex	position	city	trngobj	retn date
HAMMAD	AWATIF	F	HEAD, BUDGET SECTION	KHARTOUM	CERT	08/09/80
. list off lastname, fstname, sex, position, city, trngobj, retn date for employer='NATIONAL TRG ADMIN'						
lastname	fstname	sex	position	city	trngobj	retn date
KHOGALI	IHSSAN	F	TRAINING INSPECTOR	KHARTOUM	CERT	08/17/87
MOHAMED	RASHIDA	F	ASSISTANT DIRECTOR	KHARTOUM	CERT	07/15/84
MUSTAFA	MURAD	M	D/DIRECTOR	KHARTOUM	CERT	08/18/83

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ENERGY and NATURAL RESOURCES

list off lastname,firstname,sex,position,city,tringobj,retndate for employer='MINISTRY OF ENERGY'							
lastname	firstname	sex	position	city	tringobj	retndate	
MUKHTAR	MOHAMED	M	UNDERSECRETARY	KHARTOUM	CERT	03/16/83	
M.ANIS	FATMA	F	ASST.CHEMICAL ENGINEER	KHARTOUM	MS	05/15/83	
list off lastname,firstname,sex,position,city,tringobj,retndate for employer='NATIONAL ENERGY ADMIN'							
lastname	firstname	sex	position	city	tringobj	retndate	
SULIMAN	BULGIS	F	AGRIC. INSPECTOR	KHARTOUM	CERT	08/12/85	
ABUSUM	AHMED	M	HEAD, NEW ENERGIES SECT.	KHARTOUM	CERT	06/10/86	
AHMED	AHMED	M	GEOPHYSICIST	KHARTOUM	MS	/ /	
AHMED	BUSHRA	M	HEAD,PROJ DESIG TECH STUD		CERT	07/15/86	
AHMED	IBRAHIM	M	COMPUTER SECTION SUPERV.	KHARTOUM	CERT	05/18/87	
EL FAKI	MAHA	F	CHEMICAL ENGINEER	KHARTOUM	CERT	06/10/86	
EL HASSAN	AHMED	M	MANAGER COMMERC ENG DEPT	KHARTOUM	CERT	03/10/85	
EL SUBKI	TAHA	M	CHIEF,PROJ STUD UNIT		CERT	07/20/86	
FARAH	FARAH	M	HEAD, ENERGY P. MGMT STUD	KHARTOUM	MS	06/02/87	
HAMAD	BAKRI	M	MECHANICAL ENGINEER	KHARTOUM	CERT	06/10/86	
HAMAD	HASSAN	M	LEGAL ADVISOR	KHARTOUM	CERT	12/20/83	
MOHAMED	ISMAIL	M	HEAD,PROJ.EVAL.SECTION	KHARTOUM	MS	05/17/87	
SHULLI	A/RAHMAN	M	DIRECTOR	KHARTOUM	CERT	06/30/86	
MOHAMED ALI	EL SADIG	M	ENERGY INSPECTORYIST	KHARTOUM	MS	06/25/86	
EL GIZOULI	ISMAIL	M	D/DIR	KHARTOUM	CERT	05/10/82	
EL HASSAN	ABDULLAH	M	A/HEAD OF ECO & FIN SECTM	KHARTOUM	CERT	11/15/82	
MOHAMED	ISMAIL	M	HEAD, PROJECTS EVALUATION	KHARTOUM	CERT	11/06/83	
OSMAN	ABDEL BAGI	M		KHARTOUM	CERT	11/08/82	
ABDEL GADIR	BULIGIS	F	INSPECTOR	KHARTOUM	CERT	06/07/83	
ABDEL RAZIG	ABDEL MONEIM	M	ASSIST ENGINEER	KHARTOUM	CERT	06/07/83	
ABDEL SALAM	ABDEL SALAM	M	HEAD OF BIOMASS SECTION	KHARTOUM	CERT	05/28/84	
AHMED	EGBAL	F	ASST ENERGY INSPECTOR	KHARTOUM	CERT	12/15/81	
AHMED	SOAD	F	ASST ENERGY INSPECTOR	KHARTOUM	CERT	06/07/81	
ALI	MOHAMED FAWZ	M	SENIOR INSPECTORTION	KHARTOUM	CERT	05/28/84	
EL FAKI	MAHA	F	CHEMICAL ENGINEER	KHARTOUM	CERT	06/07/83	
EL SHEIKH	KANTHER	F	ASSIST INSPECTOR	KHARTOUM	CERT	06/07/83	
HAMED	BAKRI	M	MECH ENGINEER	KHARTOUM	CERT	06/07/83	
IDRIS	NOUR	F	INSPECTOR	KHARTOUM	CERT	12/15/82	
MOHAMED	FATIN	F	ASST INSPECTOR	KHARTOUM	CERT	06/08/82	
MOHAMED	KANTHER	F	INSPECTOR	KHARTOUM	CERT	12/15/82	
MOHAMED	MASSAD	M	HEAD ELECTRIC POWER DEPT	KHARTOUM	CERT	06/26/83	
MOHAMED NUR	SALAH EL DIN	M	EY INSPECTOR	KHARTOUM	CERT	05/28/84	
MUSA	MARIAM	F	ASSIT INSPECTOR	KHARTOUM	CERT	06/08/82	
MUTWALY	SAFAA	F	CHEMICAL ENGINEER	KHARTOUM	CERT	12/15/81	
OSMAN	ABDALLA	M	INSPECOR	KHARTOUM	CERT	12/15/82	
A/HAMEED	ALI	M	SENIOR INSPECTOR	KHARTOUM	MS	01/24/86	
AHMED	AHMED	M	GEOPHYSICIST	KHARTOUM	MS	/ /	
AHMED	MAHA	F	ASST. INSPECTOR,PET DEPT	KHARTOUM	MS	12/02/83	
ALI	MOHAMED	M	CHEIF ENGINEER MAINT.	KHARTOUM	CERT	09/19/83	
BASHIR	ISHAG	M	ENERGY PLANNER	KHARTOUM	MS	01/05/83	
DAFALLA	GAAFAR	M		KHARTOUM	MS	09/15/85	
EL AMIN	GAFFAR	M	A/DIRECTOR	KHARTOUM	CERT	12/19/82	
EL AMIN	NIEMAT	M	ASSIST INSPECTOR	KHARTOUM	MS	08/21/84	
EL HAKEEM	MAHMOUD	M	ENERGY ANALYST	KHARTOUM	CERT	12/25/83	
FARAH	FARAH	M	HEAD,INTEG. ENERGY PLANN.	KHARTOUM	CERT	06/05/83	
FARAH	MOHAMED	M	ASSIST INSPECTORTION	KHARTOUM	MS	04/02/86	
MOHAMED	ISMAIL	M	HEAD,PROJ.EVAL.SECTION	KHARTOUM	MS	05/17/87	
MOHAMED ALI	MOHAMED	M	HEAD, ENERGY PLANNING	KHARTOUM	MS	03/17/87	
NIMIR	HASSAN	M	HEAD, PETROLEUM SUPP.SECT	KHARTOUM	CERT	06/05/83	
OSMAN	ABDALLA	M	HEAD OF REGIUNAL PLANN	KHARTOUM	CERT	08/03/86	
OSMAN	AHMED	M	INSPECTORORESTRY DEPT	KHARTOUM	MS	08/01/86	
SULIMAN	SAIF EL DANLA	M	INSPECTOR	KHARTOUM	MS	02/10/85	
YASSIN	MUNA	M	ENERGY LEGAL ADVISOR	KHARTOUM	MS	06/01/85	
EL HASSAN	AHMED	M	HEAD PETROLEUM DEPT.	KHARTOUM	MS	11/30/99	
WL AMIN	GAAFAR	M	DIRECTOR	KHARTOUM	CERT	12/19/82	

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. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='SUDAN RENEW ENERGY PRO'
lastname      firstname      sex position      city      trngobj  retndate
ABDEL RAHMAN  KHALAFALLA    M  FORESTRY CONSULTANT  KHARTOUM  CERT    02/11/86
ALI          KHALID        M  AGR/FORESTRY        KHARTOUM  CERT    07/05/87
GULFAN      GUMMA         M  ENGINEER            KHARTOUM  CERT    09/05/85
MOHAMED     HAMZA         M  FUEL WOOD GROUP LEADER  KHARTOUM  CERT    10/30/85
MOHAMED     HAMZA         M  FUEL WOOD GROUP LEADER  KHARTOUM  CERT    04/23/85

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='GPC'
lastname      firstname      sex position      city      trngobj  retndate
GURANI       MOHAMED       M  PROJECT MANAGER      KHARTOUM  CERT    08/16/86
MOHAMED     RABEI        M  SENIOR TRAINING OFFICER  KHARTOUM  CERT    11/17/86
ABDEL GADIR  MOHAMED       M  ASST FINANCIAL MANAGER  KHARTOUM  CERT    05/10/82
KABBASHI    JOHN          M  PROJECT MANAGER      KHARTOUM  CERT    11/15/82
MARHOUM     ABDEL AZIZ    M  HEAD OF PLANNING SECTION  KHARTOUM  CERT    05/13/84
MODAWI      MOHAMED       M  HEAD OF DISTRIBUTION SEC.  KHARTOUM  CERT    11/06/83
A/BAGI      SAMI          M  GEOLOGIST            KHARTOUM  CERT    10/02/84
ABDALLA     AZHARI        M  PETROLEUM GEOLOGIST    KHARTOUM  CERT    08/28/83
ALI          AZHARI        M  GEOLOGIST            KHARTOUM  CERT    10/02/84
IBRAHIM     AQHMED       M  HEAD OF FIN ANALYSIS YSIS  KHARTOUM  CERT    12/02/84
MUSTAFA     HASSAN       M  DIRECTOR, DISTRIB. DEPT  KHARTOUM  CERT    06/05/83
NOUR EL DIN AHMED        M  GEOPHYSICIST         KHARTOUM  CERT    08/22/86
NUGUD       MOHAMED       M  DIR OF EXPLRTN DEPT    KHARTOUM  CERT    08/08/84
OSMAN       A/MUTAAL     M  HEAD REFINING SECTION   KHARTOUM  MS      02/10/86

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='GMRD'
lastname      firstname      sex position      city      trngobj  retndate
ABDEL MALIK  ABDEL MONEIM  M  PETROLEUM GEOLOGIST    KHARTOUM  CERT    08/30/83
AMIR         YOUSIF       M  GEOLOGIST             KHARTOUM  CERT    10/02/84
MOHAMED     ABDALLA      M  GEOLOGIST             KHARTOUM  CERT    10/02/84
MURSI       HUSSEIN     M  GEOLOGIST             KHARTOUM  CERT    10/02/84
MUSTAFA     FADL        M  GEOPHYSICIST         KHARTOUM  CERT    08/28/83
SHAMBATI    ABDEL AZIM   M  PETROLEUM GEOLOGIST    KHARTOUM  CERT    09/15/83
YOUSIF      HAYAT       F  PETROLEUM GEOLOGIST    KHARTOUM  CERT    08/28/83

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='NATIONAL ELECTRIC CORP'
lastname      firstname      sex position      city      trngobj  retndate
MOHAMED     MUSSAAD      M  SHIFT CHARGE ENGINEER  KHARTOUM  CERT    06/07/82
ADAM        SAMIR        M  COMPUTER PROGRAMER     KHARTOUM  CERT    04/16/85
ADAM        SAMIR        M  COMPUTER PROGRAMMER    KHARTOUM  CERT    03/15/87
AHMED       SIDDIG       M  PROGRAMMER             KHARTOUM  CERT    03/15/87
GUMMA       SALAH EL DIN M  ANALYST PROGRAMMER     KHARTOUM  CERT    03/15/87
HASBALLA    AHMED        M  PROGRAMMER             KHARTOUM  CERT    03/15/87
HASSABALLA AHMED        M  COMPUTER PROGRAMER     KHARTOUM  CERT    04/16/85
MOHAMED     HUDA         F  ANALYST PROGRAMMER     KHARTOUM  CERT    03/15/87
OSMAN       SULIMAN     M  COMPUTER PROGRAMER     KHARTOUM  CERT    04/16/85
OSMAN       ZUHAIR      M  COPMUTER PROGRAMERR    KHARTOUM  CERT    04/16/85
OSMAN       ZUHAIR      M  PROGRAMMER             KHARTOUM  CERT    03/15/87
RAHAMMA     MOHAMED AHMED M  PROGRAMMER             KHARTOUM  CERT    03/15/87
SHARIF      HASHIM       M  COMPUTER PROGRAMER     KHARTOUM  CERT    04/16/85
SHARIF      HASHIM       M  PROGRAMMER             KHARTOUM  CERT    03/15/87
MOHAMED     ABDEL MOEEN  M  MANAGER FIN & ADMNN    KHARTOUM  CERT    05/13/84
A/SALAM     MOHAMED      M  DIRECTOR,CMMER.AFFAIR  KHARTOUM  CERT    06/12/83
ABDALLA     ALI          M  BOILER ENGINEER        KHARTOUM  CERT    09/19/83
AHMED       AHMED        M  HEAD OF TRAINING SECTION  KHARTOUM  CERT    12/18/83
ALI         IBRAHIM     M  MAINTENANCE SUPERINT.  KHARTOUM  CERT    09/19/83
EL HASSAN   KHALID      M  ENGINEER               KHARTOUM  CERT    12/31/84
EL NAIEM    HATIM       M  GENERATION ENGINEER    KHARTOUM  CERT    09/19/83
IDRIS       A/RAZIG     M  CHIEF PLANNING         KHARTOUM  CERT    06/12/83
SAIED       ONSI        M  PLANN & EFFECIENCY MNGRNG  KHARTOUM  CERT    06/30/86
SHEREIF     MOHAMED     M  NEW LOAD DIS.C. PRO MANAG  KHARTOUM  CERT    07/25/83
UGALI       MARIO       M  ENGINEER               GEDAREF  CERT    12/18/83

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- list of lastname,firstname,sex,position,city,lrngobj,retndate (see 60810788='NATIONAL WATER CORP'
  lastname      firstname      sex      position      city      lrngobj      retndate
  * IMAM          EL TIGANI      M        HYDROGEOLOGIST      KHARTOUM      CERT      08/13/84
  IBRAHIM        OSMAN          M        SENIOR TRAINING INSPECTOR      KHARTOUM      CERT      07/16/84
  KHAIRALLA      KHAIRALLA     M        DIRECTOR GENERAL      KHARTOUM      CERT      07/16/84
  2 KHALAFALLA    OMER           M        PROJECT MANAGER       GEDAREF       CERT      07/16/84
  KHALAFALLA     OMER           M        PROJECT DIR           GEDARIF       CERT      07/04/85
  MOHAMED        MOHAMED        M        MANAGING DIR RURAL WATER      GEDAREF       CERT      07/16/84
  MOHAMED EL HASSAN      MOHAMED KHAIR      M        CO-PROJECT MANAGER      KHARTOUM      CERT      12/12/83
  OSMAN          MARDIA         M        HEAD OF DRILLING       KHARTOUM      CERT      12/12/83
  OSMAN          OMER           M        HEAD OF INSTALLATION    KHARTOUM      CERT      05/28/84

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HEALTH

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. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='MINISTRY OF HEALTH'
lastname      firstname      sex  position      city      trngobj  retndate
HIJA          MAHMOUD        M    DISTRICT MALARIA SPRVSRR      CERT      08/30/84
ABU GARJA    ABDEL RAHMAN KINTIBAI    M    ASST HEALTH COMMISIONER      KADUGLI    CERT      05/30/81
ABDEL RAHMAN ABDEL RAHMAN    M    DIR MED SUPPLIES              KHARTOUM   CERT      06/07/82
ABDEL RAHMAN ABDEL RAHMAN    M    DIR MEDICAL SUPPLIES          KHARTOUM   CERT      05/15/84
ABDEL RAHMAN EL AMIN         M    ASST HEALTH COMMISIONER      KASSALA    CERT      05/30/81
AHMED        ABDEL HALIM     M    DIR OF HEALTH                 DONGOLA    CERT      05/30/82
ARABI        AHMED           M    DIR FOR HEALTH E.REG          KASSALA    CERT      05/30/82
BALLA        MOHAMED         M    D/DIR HEALTH STAT & RESEA      KHARTOUM   MS         01/05/82
BIELY        ALI             M    D/DIR OF RURAL & P.H.C.        KHARTOUM   CERT      05/30/81
EL INAM      MOHAMED         M    DIR PRVTV/SOCIA MEDICINE      KHARTOUM   CERT      12/20/87
EL MINSHAWI ABDEL RAAAAOUF M    SENIOR DISPENSER              KHARTOUM   CERT      12/18/82
HAMID        SALAH           M    ASSIST DIR FOR SERV & ADM      KHARTOUM   CERT      12/18/87
HUSSEIN     ABBAS           M    ASST HEALTH COMMISSIONER      EL OBEID   CERT      08/04/81
KHALIFA     FAREED          M    ASST HEALTH COMMISSIONER      EL OBEID   CERT      05/30/81
MOHAMED     EISA            M    ASST HEALTH COMMISSIONER      KHARTOUM   CERT      05/30/81
MOHAMED     KAMAL           M    DIR NUTRITION DIVISION        KHARTOUM   CERT      05/30/82
MOHAMED SALIH MOHAMED         M    ASST DIR FOR PURCHASESSES      KHARTOUM   CERT      12/18/82
MOHAMED SALIH MOHAMED         M    HEAD OF PURCH DEPT MED SU      KHARTOUM   CERT      06/07/82
MUSBAH      MOHAMED         M    DIR PRIMARY HEALTH CARE P      KHARTOUM   CERT      12/05/82
OSMAN       ABDEL HAMEED    M    DIR OF EGYPTIAN PROGRAM        KHARTOUM   CERT      05/30/81
SALIM       EL TAHIR        M    DIR OF MED SERVICES           KHARTOUM   CERT      05/30/82
SULIMAN     MIRGHANI        M    D/ASST COMM FOR HEALTH         KADUGLI    CERT      08/05/81
ZIADA       HASHIM          M    D/DIR FOR CURATIVE MED         KHARTOUM   CERT      05/30/82
ABDALLA     OSMAN           M    CONSULTANT OB/GYN             HASAHEISA  CERT      06/28/82
ABDEL GADIR EL KHEIR        M    PAEDIATRICIAN                 EL OBEID   CERT      12/15/85
ALI         MAGDA           F    A/DIR,PRIMARY HEALTH PROG      KHARTOUM   CERT      02/02/84
ALI         MAGDA           F    A/DIR. PRIMARY HEALTH PRG      KHARTOUM   CERT      02/02/84
ALI         MAGDA           F    DIR OF NATIONAL CDD            KHARTOUM   CERT      04/06/86
ALI         NUSA            M    SENIOR MED ASSIT              EL OBEID   CERT      09/10/87
AMARA       AHMED           M    ASST COMM FOR HEALTH           KHARTOUM   CERT      12/18/87
ARBAB       ANAL            F    ASSIT DIR MCH/FP/FP            KHARTOUM   CERT      07/01/85
BAROUDI     MOHAMED         M    ASSIT DIR OF CDD PROG          KHARTOUM   CERT      09/06/86
BAROUDI     MOHAMED         M    CHIEF RURAL DEVEL INSP         KHARTOUM   CERT      04/06/86
BASHIR      A/AZIZ         M    MEDICAL ASSIT                 EL FASHIR  CERT      09/10/87
DANIEL      NAOMI          F    HEALTH VISITOR                 JUBA       CERT      05/31/86
DUKU        JANET          F    HEATH VISITOR                  JUBA       CERT      05/31/86
EL DARDIERY ANAL           F    RHSP,MCH ADVISOR              KHARTOUM   CERT      04/06/86
EL DAWI     NADIA          F    GENERAL PRATICIONERR           KHARTOUM   CERT      06/27/86
EL DEEP     TEWFIK        M    OB/GYN KHT N HOSPITAL          KHARTOUM NORTH CERT      12/20/82
EL FAKI     OMER           M    D/DIR FOR HEALTH EAST REG      KASSALA    CERT      08/07/87
EL MUZAMIL EL TAYEB       M    DIR OF HEALTH SERVICES         EDDAMAR    CERT      07/28/82
EL NASHAS   EL HADI        M    DIR KHT TEACH HOSPITAL         KHARTOUM   CERT      09/17/87
GAD EL KARIM ARD EL SHAM    M    HEALTH VISITOR                 EL OBEID   CERT      09/10/87
GAMEIL      ASHA           F    HEALTH VISITOR                 EL FASHIR  CERT      09/10/87
GIBREIL     HENENA         F    EPI-MCH COORDINATOR            KHARTOUM   CERT      06/20/86
HASSANEIN   A/BASIT        M    COSULTANT PEDIATRICIAN         KHARTOUM   CERT      06/26/83
HUSSEIN     ABBAS           M    ASST COMM FOR HEALTH           EL OBEID   CERT      08/07/83
IBRAHIM     MOHAMED         M    PUB HEALTH OFFICER             EL OBEID   CERT      09/10/87
ISHAG       SITTANA        F    DEPU/DIR,MCH/FP                KHARTOUM   CERT      06/16/84
KAMBLAWI    MUNIRA         F    DIR OF TECH DEPT,CMP           KHARTOUM   CERT      05/01/87
KERRAR      TAG EL SIR     M    HEAD DEPT PRI HEALTH CARE      KHARTOUM   CERT      09/05/81
KUCH        PRISCILLA     F    MS STUDENT IN COMM MED         KHARTOUM   CERT      04/06/86
LO-MATAYO   CLEMENT        M    MEDICAL OFFICER                KHARTOUM   CERT      07/25/87
MALITH      JOHN           M    DIR OF HEALTH SERVICES         NAU        CERT      03/31/85
MICHAEL     NABIL          M    D/DIR FOR HEALTH               KASSALA    CERT      07/25/82
MODD        JOYCE         F    NURSE/MIDWIFE                 JUBA       CERT      05/31/81
MOHAMED     AMAL           F    PRCTICIONER                    KHARTOUM   CERT      06/25/84
MOHAMED     AZIZA         F    SENIOR PHARMACIST              EL OBEID   CERT      09/10/87

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MOHAMED	UM BASHAYER	F	MATRON	EL FASHIR	CERT	09/10/87
MOHAMED AHMED	OMER	M	ASST DIR OF HEALTH	EL FASHIR	CERT	08/07/83
MUKHTAR	OSMAN	M	OB/GYN KHT TEACHING HOSPI	KHARTOUM	CERT	12/20/82
MUSA	HUSSEIN	M	DEPUTY G. DIRECTOR FOR HE	WAD MEDANI	CERT	07/01/87
NUGUD	AMAL	F	MCH/FP ADVISOR	EL OBEID	CERT	12/15/85
SONNEMANN	JAMES	M	D	EL OBEID	CERT	04/06/86
SONNEMANN	JAMES	M	RHSP,KORDOFAN REG COORD	EL OBEID	CERT	04/01/85
WILLIAM	REMIGIO	M	DIR OF TRGAINING	JUBA	MPH	01/10/87
WILLIAM	REMIGIO	M	D/DIR FOR TRAINING	JUBA	CERT	/ /
ZAHIR	KHALDA	F	DIR MCH/FP	KHARTOUM	CERT	12/15/85
ALI	AHMED	M	EXCUTIVE DIRECTOR,SFCA	KHARTOUM	CERT	07/01/87
ALI	LAILA	F	NURSE IN-CHARGE OF MTRNL	KHARTOUM	CERT	08/04/87
EL RAYAH	MOHAMED	M	DIRECTOR OF KHARTOUM HOSP	KHARTOUM	DEPT	07/01/87
GASSIM	HIDAYAT	F	SISTER IN-CHRG MCH SFCA	KHARTOUM	CERT	08/04/87
HASSANEIN	OSMAN	M	HEAD OF KHT N HOSPITALN.H	KHARTOUM NORTH	CERT	05/05/87
HUSSEIN	MAHOUN	M	SENIOR OB/GYN	KHARTOUM	CERT	07/01/87
MUSTAFA	MUTASIM	M	DIRECTOR,WILE CLINIC	KHARTOUM	CERT	11/30/99
SULIMAN	WAYLA	F	DIR OF MODEL CLINIC,SFCA	KHARTOUM	CERT	11/11/85
ALI	OMER	M	DIR,EPID & CONT OF DIA DS	WAD MEDANI	CERT	12/15/85
EL GADDAL	AHMED	M	DIR BNHP	WAD MEDANI	CERT	08/16/82
EL GADDAL	AHMED	M	DIR BLUE NILE HEALTH PROJ	KHARTOUM	CERT	10/03/84
EL HASSAN	IBRAHIM	M	SENIOR HEALTH STAT.	KHARTOUM	CERT	09/07/84
WAZIRI	HUSSEIN	M	SENIOR PUB HEALTH INSP	WAD MEDANI	CERT	11/03/84
BALDO	MOHAMED	M	DIR MCH/FP	OMDURMAN	CERT	09/05/81
ABBA KORA	TAIBA	F	HAG YOUSIF FPP CORD	KHARTOUM	CERT	11/09/86
ABDALLA	NAFISA	F	ADMIN OF FP CLINICS	KHARTOUM	CERT	11/09/86
ABDEL HAMID	TAHA	M	DIR CM/PHC KORDFAN REG	EL OBEID	CERT	04/01/85
ABDEL MUTTALAB	MOHAMED	M	D/DIR MED SUPPLIES	KHARTOUM	CERT	11/09/86
ABDEL RAHMAN	ALI	M	DIR RUF'A HOSPITAL	RUF'AA	CERT	12/23/83
ADOU	MATTHEW	M	PHYSICIAN,JUBA UNIV HOSPT	JUBA	CERT	04/30/84
AHMED	KHMAD	M	FIELD OFFICER OF CBFH	KHARTOUM	CERT	11/09/86
AHMED	MOHAMED	M	CHAIRMAN KHT NURSING COLL	KHARTOUM	CERT	06/21/82
ARABI	AHMED	M	DIR GENERAL HEALTH AFFAIR	KHARTOUM	CERT	/ /
BEILY	ALI	M	D/DIR RH/PHCOR	KHARTOUM	CERT	07/04/82
EBIN NADUF	JAFFER	M	DIR CHLDN'S EMERG HOSP	KHARTOUM	CERT	06/15/83
EL ALAWI	ABU OBAIDA	M	DIR HEALTH EDUCATION	KHARTOUM	CERT	08/16/81
EL DEEB	TANFIK	M	PHYSICIAN T N HOSPITAL	KHARTOUM	CERT	12/21/82
EL SAYED	ABDEL HAMEED	M	DIR PRIM HEALTH CARECARE	KHARTOUM	CERT	04/02/85
FADL	ALI	M	MINISTER OF HEALTH	KHARTOUM	CERT	07/04/82
GEILI	GAAFAR	M	DIR SENNAR CIVIL HOSPITAL	SENNAR	CERT	10/02/83
GEILI	GAAFAR	M	DIR SENNAR CIVIL HOSPITAL	SENNAR	CERT	10/02/83
GHANDOUR	OSMAN	M	SENIOR OB/GYN OMD MHD HOS	KHARTOUM	CERT	04/20/86
GUMMAA	BILAL	M	DIR RUF'A CIVIL HOSPITAL	RUF'AA	CERT	11/09/87
HASSANEIN	OSMAN	M	D/DIR FPIA HAG YOU PROJ	KHARTOUM NORTH	CERT	06/21/82
MAGZOU	ALI	M	DIR UM RUMABA HOSPITAL	UM RUMABA	CERT	05/01/83
MALIK	EL HAG	M	OB/GYN,SENNAR HOSPITAL	KHARTOUM	CERT	06/28/81
MUSTAFA	NAFISA	F	DIR OB/GYN	WAD MEDANI	CERT	06/07/82
NAHAS	HADI	M	DIR KHT NORTH HOSPITAL	KHARTOUM	CERT	12/11/83
OSMAN	AMAL	F	ASST DIR FOR MCH/FP PROG	KHARTOUM	CERT	08/15/08
SID AHMED	TAHA	M	SENIOR PUB HEALTH INSP	EL OBEID	CERT	09/20/81
ABDEL HAMEED	AHMED	M	MEDICAL OFFICER	WAD MEDANI	MS	07/25/79
ABDEL RAHIM	IBRAHIM	M	MEDICAL OFFICER	WAD MEDANI	MS	08/25/78
ANIS	NUMA	F	SPEECH THERAPIST	KHARTOUM	CERT	09/05/87
. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='DIRECTORATE OF HEALTH'						
lastname	firstname	sex	position	city	trngobj	retndate
ABBA	EBAN	M	ASST DIR,PLANN & BIostat	JUBA	CERT	03/31/85
JUWA	MARY	F	DIR MATERNAL&CHILD HEALTH	JUBA	CERT	05/31/86
JUWA	MARY	F	SUPERVISOR OF MCH/FP	JUBA	CERT	06/27/87
SORO	CHRISTINE	F	MATRON,JUBA TEACHING HOSP	JUBA	CERT	05/31/86

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='JUBA UNIV HOSPITAL'						
lastname	firstname	sex	position	city	tringobj	retndate
AHMED	FATMA	F	DEPUTY MATRON	KHARTOUM	CERT	11/30/99
. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='KHT NURSING COLLEGE'						
lastname	firstname	sex	position	city	tringobj	retndate
HANID	AWATIF	F	HEAD,DEPT MED & PEDIATRIC	KHARTOUM	CERT	09/20/81
OSMAN	AWATIF	F	DIRECTOR	KHARTOUM	CERT	07/20/81
OSMAN	AWATIF	F	DIR	KHARTOUM	CERT	05/16/82
OSMAN	AWATIF	F	SUPERVISOR & ADMINISTRATOR	KHARTOUM	CERT	02/14/82
. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='SUD FERTILITY CNT ASS'						
lastname	firstname	sex	position	city	tringobj	retndate
EL HABIB	SAMIRA	F	ASST EX DIR & DATA COL CO	KHARTOUM	CERT	06/09/85
ABDEL AZIZ	FAROUK	M	EXEC BOARD SFCA	KHARTOUM	CERT	06/05/83
EL FAKI	ABDEL MAGID	M	INFO & EDU OFFICER	KHARTOUM	CERT	08/18/85
MUSTAFA	MUTASIM	M	PROJECT COORDINATOR	KHARTOUM	CERT	11/25/83

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MISCELLANEOUS

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. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='MIN OF LABOUR'
lastname          firstname          sex position          city          trngobj retndate
EL ZUBEIR         HUSSEIN           M  SENIOR MANPOWER OFFICER  KHT          CERT    06/04/84

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='MIN OF SOCIAL WELFARE'
lastname          firstname          sex position          city          trngobj retndate
AHMED             EL HAG            M  SECR FOR FOREIGN RELATION KHARTOUM     CERT    08/16/81

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='MIN PUB WORKS/HOUSING'
lastname          firstname          sex position          city          trngobj retndate
KHALAFALLA       OSMAN              M  KHT TOWN PLANNING        KHARTOUM     CERT    03/01/86
ABDEL HAFEEZ     ABBAS              M  CHIEF SANITARY ENG       KHARTOUM     CERT    07/03/82
OSMAN            ABBASHAR          M  BUILDING SUPERINTENDENT  KHARTOUM     CERT    05/21/84
DENG             MATHEW             M  DIR GENERAL              MALAKAL      CERT    04/15/84

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='ROAD & BRIDGE PUB CORP'
lastname          firstname          sex position          city          trngobj retndate
AHMED             HUSSEIN           M  DIR OF CONSTRUCTION      KHARTOUM     CERT    09/30/85
EL RASHID        BAKRI              M  ENGINEER                 ATBARA       CERT    06/01/85
MEGHANI          BAKRI              M  ENGINEER                 EL OBEID     CERT    06/01/85

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='SUDANESE WORKERS UNION'
lastname          firstname          sex position          city          trngobj retndate
ABDALLA          YAHIA              M  MEM EXEC COMM            KHARTOUM     CERT    02/12/84
AHMED            ABDEL LATIF        M  SECRETARY GENERAL        KHARTOUM     CERT    07/03/84
BABIKER          MOHAMED            M  SECRETARY                KHARTOUM     CERT    03/17/82
BAKHEIT          HAMI EL DIN        M  SECRETARY GENERAL        KHARTOUM     CERT    11/10/81
EL ZUBEIR        MAHJOUR            M  FIRST VICE-PRESIDENT     KHARTOUM     CERT    08/04/86
MOHAMED          FADLALLA           M  MEM CENTRAL COMMITTEE    KHARTOUM     CERT    05/24/83
SALIH            ISSA                M  MEM OF CENTRAL COMM      KHARTOUM     CERT    08/20/84
SHAMISH          ALI                 M  DEPUTY SECRETARY GENERAL KHARTOUM     CERT    05/04/82
SHAMISH          ALI                 M  DEPUTY SECRETARY GENERAL KHARTOUM     CERT    05/24/83

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='PROF& TECH TRADE UNION'
lastname          firstname          sex position          city          trngobj retndate
EL HUSSEIN       IBRAHIM            M  PRESIDENT                KHARTOUM     CERT    02/15/83
EL SHEIKH        ABDEL GADIR        M  MEM OF EXEC COMM         KHARTOUM     CERT    04/02/85

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='SUDAN FIRE SERVICES'
lastname          firstname          sex position          city          trngobj retndate
ABDEL HAMID      ABDEL HAMID        M  COLONEL                  WAD MEDANI   CERT    11/27/85
AHMED            MOHAMED            M  D/CHIEF FIRE OFFICER    KHARTOUM     CERT    12/20/84
EL FIL           HAMID              M  COLONEL                  KHARTOUM     CERT    11/27/85
EL SHEIKH        MEDANI              M  DIR BEZIRA SHENE FIRE SER WAD MEDANI   CERT    12/12/83
EL SHEIKH        MOHAMED            M  CHIEF FIRE OFFICER      KHARTOUM     CERT    12/20/84
FADLALLA        IDRIS               M  D/DIR GENERAL            KHARTOUM     CERT    12/12/83
FARAH           ABDALLA             M  COLONEL                  ATBARA       CERT    06/18/84
HUSSEIN         SIR EL KHATIM      M  COLONEL                  WAD MEDANI/BARAKAT CERT    06/18/84
ISMAIL          MOHAMED            M  DIRECTOR GENERAL        KHARTOUM     CERT    10/08/84

. list off lastname,firstname,sex,position,city,tringobj,retndate for employer='DEPT OF STATISTICS'
lastname          firstname          sex position          city          trngobj retndate
MODAWI           ABDEL WAHAB        M  DEMOGRAPHER              KHARTOUM     CERT    10/22/84
RIZGALLA        MAHMOUD            M  DEMOGRAPHER              KHARTOUM     CERT    10/22/84
SEIF EL NASR    IBRAHIM            M  ASST CENSUS DIR          KHARTOUM     CERT    08/12/85
ABU EL YANEIN   SALIH              M  STATISTICIAN             KHARTOUM     CERT    06/28/87
NAIMALLA        NAIMALLA           M  D/DIRECTOR               KHARTOUM     CERT    01/27/81

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RESEARCH (excluding AGRICULTURE and FOOD)

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='NATIONAL COUNC FOR RES'

lastname	firstname	sex	position	city	trngobj	retndate
MOHAMED	ISMAIL	M	RESEARCH ASSISTANT	KHARTOUM	CERT	10/15/87
ALI	SHOMMO	M	DIRECTOR,REN.ENERGY R.INS	KHARTOUM	CERT	07/01/87
EISA	EL TAYEB	M	DIRECTOR, ENERGY RCH.COUN	KHARTOUM	CERT	06/02/85
EISA	EL TAYEB	M	DIR ERC	KHARTOUM	CERT	04/22/87
EL ZEIN	IBRAHIM	M	RESEARCH ASSISTANT	KHARTOUM	CERT	08/12/85
HASSAN	HASSAN	M	SENIOR RESEARCHER	KHARTOUM	CERT	04/30/85
HASSAN	HASSAN	M	DIRECTOR,ENERGY RCH COUN.	KHARTOUM	CERT	12/15/83
OMER	SIDDIG	M	RESEARCH ASSISTANT	KHARTOUM	CERT	08/12/85
SID AHMED	MOHAMED	M	DIR ERIERI	KHARTOUM	CERT	04/10/86
SID AHMED	MOHAMED	M	DIRECTOR, RCH. INSTITUTE	KHARTOUM	CERT	07/30/84
AHMED	AHMED BABIKER	M	RESEARCHER	WAD MEDANI	CERT	10/03/84
AHMED	AHMED BABIKER	M	RESEARCHER	WAD MEDANI	CERT	04/10/85

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='ECON/SOC RESEARCH COUN'

lastname	firstname	sex	position	city	trngobj	retndate
HASSABALLA	HASSABALLA	M	ASSIST RESEARCHER	KHARTOUM	MS	07/05/82
KHALIL	SAAD EL DIN	M	ASSISTANT RESEARCH FELLOW	KHARTOUM	PHD	09/01/87
MOHAMED	EL SAUDI	M	RESEARCHER	KHT	PHD	07/07/87
ALI	MOHAMED	M	RESEARCHER	KHARTOUM	CERT	10/06/85
ALI	MOHAMED	M	RESEARCHER	KHARTOUM	CERT	06/28/87

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='ENERGY RES INST'

lastname	firstname	sex	position	city	trngobj	retndate
AHMED	ASMA	F	SCIENTIFIC OFFICER	KHARTOUM	CERT	06/25/85
EISA	ELTAYEB	M	SENIOR RESEARCHER	KHARTOUM	CERT	08/07/83
EL NUR	AMATIF	F	ASSIST RESEARCHER	KHARTOUM	CERT	09/12/84
EL SAYED	SHADIA	F	RESEARCHER	KHARTOUM	CERT	07/22/85
EL SAYED	SHADIA	F	RESEARCHER	KHARTOUM	CERT	12/12/83
MOHAMED	EL TAYEB	M	MECH ENGINEERENGINEER	KHARTOUM	CERT	09/12/84
MOHAMED	HASSAN	M	ENGINEER	KHARTOUM	CERT	08/12/85
SABIR	HISHAM	M	ENGINEER	KHARTOUM	CERT	08/12/85
SHA EL DIN	SHOMMO	M	DIRECTOR	KHARTOUM	CERT	12/12/83
TAHA	AZMI	M	RESEARCHER	KHARTOUM	CERT	01/26/86
MOHAMED HOOD	AHMED	M	CHIEF SOLAR SECTION	KHARTOUM	CERT	07/29/83
EL ZEIN	IBRAHIM	M	RESEARCH	KHARTOUM	CERT	06/26/83

. list off lastname,firstname,sex,position,city,trngobj,retndate for employer='ERC'

lastname	firstname	sex	position	city	trngobj	retndate
AHMED	NOURALLA	M	AGR ENGINEER	KHARTOUM	CERT	04/17/87
EISA	EL TAYEB	M	DIR ERC	KHARTOUM	CERT	06/09/86
EISA	EL TAYEB	M	DIR ERC	KHARTOUM	CERT	02/03/87
EL AMIN	GAAFAR	M	HEAD OF TCHMLGY & DISSS	KHARTOUM	CERT	04/23/85
EL AMIN	GAAFAR	M	HEAD OF TCHMLGY & DISS	KHARTOUM	TECH	04/23/85
EL AMIN	GAAFAR	M	HEAD OF TCHMLGY & DISS	KHARTOUM	CERT	06/30/86
EL HAG SALIH	HAWA	F	SECRETARY	KHARTOUM	CERT	07/04/87
EL NOUR	AMATIF	F	ASSIST RESEARCHER	KHARTOUM	CERT	06/08/87
EL SAYED	SHADIA	F	RESEARCHER	KHARTOUM	CERT	06/08/87
GEBRIL	A/RAHMAN	M	OBSERVER	KHARTOUM	CERT	01/04/85
HAMID	IBRAHIM	M	DIRECTOR, REN EN. INFORM.	KHARTOUM	CERT	08/28/86
HASSAN	SANAA	F	SECRETARY	KHARTOUM	CERT	07/04/87
HOOD	AHMED	M	RESEARCHER	KHARTOUM	CERT	06/27/84
MUSTAFA	ISHRAGA	F	SCIENTIFIC OFFICER	KHARTOUM	CERT	12/17/86
OMER	SIDDIG	M	RESEARCH ASSIST	KHARTOUM	CERT	04/17/87
OSMAN	MAHA	F	ENERGY RESEARCHER	KHARTOUM	CERT	02/11/86
OSMAN	MAHA	F	RESEARCHER	KHARTOUM	CERT	06/08/86
SAEED	AMIN	M	ENGINEER	KHARTOUM	CERT	12/17/86
SAEED	AMIN	M	ENGINEER	KHARTOUM	CERT	06/08/87
SALIH	FETHI	M	LIBRARIAN	KHARTOUM	CERT	08/28/86
SULIMAN	SOMAYA	F	ENGINEER	KHARTOUM	CERT	04/23/85
SULIMAN	SOMAYA	F	ENGINEER	KHARTOUM	CERT	06/08/87
TAHA	AZMI	M	RESEARCHER	KHARTOUM	CERT	06/08/86
BASHIR	HASSAN	M	RESEARCHER	KHARTOUM	CERT	11/26/84
FADLALLA	EL YAMEN	F	RESEARCHER	KHARTOUM	CERT	11/26/84

TRAINING ACTIVITIES OF OTHER DONORS

A. WORLD BANK/IMF/IFC

The proposed Sudan economic restructuring program is the essential foundation for any additional assistance to the private sector. Without it, and without a scaling down of the war in the South, any other measures will be merely paliative.

As these initiatives progress, a number of Bank programs are helping or will help the private sector:

1. Support for Khartoum Polytechnic

As part of a 15 million SDR credit, Education 3, the Bank will rehabilitate workshops and other buildings.

2. Establishment of Institute of Accounting Studies

As part of the TA 2 project, about \$800,000 has been spent to rehabilitate a building and bring specialist trainers from the UK to establish the first institute of its kind in the Sudan. Mr. Hussein, the former Auditor General for the Sudan Government, was hired by the Bank to head up the Institute. The purpose is to improve the local training of accountants, allow Sudanese trainees to pass the certification requirements for the Royal Institute of Chartered Accountants in the Sudan, and to set up a professional association for accountants.

3. Requirement for private sector links in public sector projects

Under an energy conservation project, an investment promotion bureau will be set up in the Ministry of Energy to promote private sector manufacturing of improved stoves being designed by the National Energy Council and National Research Council. A \$1 million line of credit will also be set up with a commercial bank for imported commodities. Under a proposed project, the Earthmoving Corp. and Irrigation Corp. will be encouraged to use private contractors for rehabilitation of the Gezira irrigation canals.

4. Political Risk Insurance

Multinational corporations routinely use this mechanism for insuring their non-commercial risks in LDCs. Up to now, such insurance has been available from national agencies (eg. OPIC) and private carriers (eg. Lloyds, AIG).

The World Bank is establishing a new group to broaden this coverage: The Multilateral Investment Guarantee Agency (MIGA). MIGA will protect new medium- and long-term investments against currency conversion risk, expropriation, breach of government

contract, armed conflict, and civil disobedience. It will give the same coverage to management and service contracts, licensing and franchise agreements, turnkey contracts, and other technology transfer arrangements. One of MIGA's novel features is that nationals of a host country can be covered if they bring assets from abroad for their domestic investments. This is meant to assist LDCs to reverse capital flight, and might help Sudan attract foreign savings held by Sudanese expatriates. The Bank has received instruments of ratification from 26 countries representing 27% of authorized capital. The USA, representing 20.5% of authorized capital, is expected to join in the next few weeks. As soon as at least 33% of capital is covered, MIGA will come into being.

This is potentially an innovative approach to promoting private investment in the Sudan, particularly as it takes the painful steps to free up its markets.

5. Management Advisory Service

Management skills are critically deficient in public and private enterprises in the Sudan. A promising new initiative to improve the management of public and private enterprises is being put forward by the IFC: the African Management Services Company (AMSCO).

The company will provide a full range of management services, technical and administrative back-up, and training of local managers to new ventures, and established firms going through rehabilitation and/or privatization in Africa. The company will provide a mixture of grants and loans to help needy clients pay for its services.

B. UNIDO/UNDP

Out of 100 short-term training opportunities offered by the United Nation's Industrial Development Organization (UNIDO) each year, about 20 are usually given to the private sector. In addition, a proposed project will provide a computerized information system for the Sudanese Industries Association, including a database of all members.

The United Nations Development Program (UNDP) in Sudan has developed a five year plan which focuses on arid land development, regional planning and rural resource utilization. Activities will benefit poor segments of the rural populations in the four regions of Korodofan, Darfur, and the Eastern and Northern Regions; the South will be incorporated whenever activities can be resumed in that area of the country. The 1988-91 program will address constraints that include: severely deficient water supply for human, animals and crops; land tenure problems, lack of credit for agricultural and rural industry, inadequate marketing, communications and transportation; weak organizations at the community level; and inadequately trained personnel, especially at the regional level.

Under this plan approximately 25 persons will participate in 3-4 month, overseas technical courses related to planning and water resource development. About 30 individuals will be sponsored under a special fund in computer use. The UNDP has recently designed an umbrella project, similar in nature to AMDP I and II, that responds to a variety of training requests which are evaluated by a Steering Committee chaired by the Ministry of Planning. Since mid-1986 when the project began, 10 short-term fellowships have been awarded in such areas as economic planning, investment planning and duty shop operation.

The UNDP does not fund longterm training. Also in contrast to A.I.D.'s program, UNDP's training program is driven to a much greater extent by opportunities at the center rather than by a local development strategy. The local UNDP office generally acts as a clearinghouse for the head office which sends course announcements which, in turn, are forwarded to the National Training Administration and the Ministry of Planning. Nominations from these offices are sent to New York, Rome, or Geneva where the selection is made from a worldwide bank of applicants. For the umbrella project the minimum qualification criterion is that all applicants have at least a Bachelors degree. In 1986/87 seventy-two fellowships were awarded to Sudanese in such areas as customs valuation, agrometeriology, international law, agricultural management, air transportation, concrete masonry, and maritime safety. The courses ranged from 2 weeks to 7 months and the United Kingdom was the most frequently used country of training.

C. EEC

The Commission of European Communities in Sudan currently has 17 candidates in pending status, 11 in training, and 22 deferred indefinitely because of failing the English Language Test required by U.K. training institutions. The Training Office receives announcements from Brussels or directly from training institutions from around the world (mostly Europe, however), compiles this information and distributes the information to EEC projects and to the National Training Administration. A Steering Committee--of which the NTA is a member--meets monthly to screen candidates and submit names to Brussels. Participants are funded under an umbrella Multi-Annual Training Projegram (MTP) managed at the EEC headquarters level. However, whereas The British Council is given a specific allocation of scholarships by the ODA, the Sudan EEC Delegation does not have such parameters. It forwards as many applications as it receives and believes capable of competing. The MTP has been criticized by some members as being a haphazard placement program without proper grounding in a country or regional development strategy.

Few EEC projects, like ODA projects, provide for overseas training and consequently the MTP is the major training vehicle. Because the EEC Delegation primarily sends training

announcements to EEC projects, one-half of the participants are associated with projects. Approximately 40 participants are sent each year and selection is biased in favor of individuals involved in agriculture, transportation, communications and, to a lesser extent, education and thus mirrors the thrust of EEC aid in Sudan. Private sector participation is virtually nill, and female enrollment is about two to three per year.

Only 3-5% of the participants are sent for Masters level training; most programs are short-term courses lasting 3-6 months. The EEC Commission in Sudan this year began sending participants to other African countries and plans to use this mode more frequently.

D. German Aid

An advisor from CIM has been provided to the SIA for two years to help set up a women's fashion design training center and to promote the ready-made clothing industry.

West German development assistance provides grants for infrastructure development (particularly water and irrigation) and related technical assistance. Rural development is the main thrust of the program and is concentrated in Darfur and Northern Region. The aid program has also financed building and equipping Vocational Training Centers in Khartoum and Port Sudan. Technical assistance has ended in Khartoum, but four experts are still working in Port Sudan where they are developing educational materials and improving the instruction in various vocational areas. There are plans to finance the construction of a center at the Khartoum VTC which would train instructors in new methods of teaching. Consideration is being given to providing technical assistance in artisan and craft production, although support for a similar effort with the Sudanese Small Craftsmen and Enterprises Union was terminated in 1987 after four years because of financial mismanagement. A proposal for an import program for the industrial sector is being evaluated in Bonn and would operate similar to the CIP.

Development aid projects are designed with training components specified in the implementation plan. However, only about 5-6 persons a year are funded in this manner. The Ministry of Economic Cooperation produces a catalogue of courses which the office in Khartoum distributes to ministries and the National Training Administration. Approximately 25-30 applications are accepted and forwarded to Bonn each year for approval and placement. Ministries are not restricted to the fields of study. Training programs usually are for 2-5 months and in a few case for 24 months, although these courses do not lead to a Masters degree. There is no policy which encourages female enrollment or recruitment of candidates from the private sector.

F. Dutch Aid

The Netherlands Fellowship Program is meant for persons who already have attained a degree and have worked in a profession for some time. When several candidates apply with comparable qualifications, priority is given to women. A catalogue, not unlike the one prepared by the German government, is distributed to government agencies. Applicants must be 40 years old, have passed the U.S. TOEFL or U.K. ETL language tests, and have documents from their employer that attest to the applicant's commitment to return home. Applications are forwarded directly to the training institutions which determine whether an applicant is qualified to attend the course requested. About 35 Sudanese, most with agricultural positions and backgrounds, succeed in gaining entrance to NFP courses. Nearly all courses are 3-6 months in duration with the maximum being 9 months.

The Dutch government is funding technical assistance to Ahfad University and the University of Khartoum in the areas of home economics, child psychology and management. The Embassy also supports a large integrated rural development project in Kassala, is financing the repair and management reorganization of the Central Medical Stores, and is funding a primary health care program. In all projects, on-the-job training is conducted with Dutch counterparts; overseas training is accomplished by using the NFP mechanism. The Embassy soon will employ a woman to analyze the project portfolio and try to determine the impact projects have had on women.

F. British Aid

The British Council manages a small fellowship program of five to six persons per year, but the competition for these rather open-ended awards is stiff. The Confederation of British Industry Scholarships support two to three Sudanese engineers annually and so does the Foreign and Commonwealth Fellowship program which targets very senior government figures.

The Council's biggest activity is managing the Technical Cooperation Training Program of the Overseas Development Assistance fund. For 1987/88 about 3% of the scholarships supported Ph.D. studies, 15% funded Masters studies, 20% supported post-graduate (i.e. post-baccalaureate) studies, 10% was programmed for short-term, on-the-job training, and the remaining one-half went for short-course training. These scholarships are used for overseas training only and in 1988/89 will number 180 at a cost of 2 million British pounds. The trend is to finance short-course training of 3-6 months rather than longterm training. There is increased experimentation with split Ph.D. training whereby the initial 9 months and the final 9 months are conducted in the U.K. with the balance of time spent in Sudan researching a local topic. ODA does not support Bachelors degree training, and anything less than 3 months is not managed by The British Council but instead by the technical officer or advisor attached to an ODA capital development project.

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The bulk of the ODA project portfolio is in agriculture, irrigation, animal production, health and transport. Because it is basically public sector oriented, project related training does not benefit the private sector. The women participant rate is around 7% annually. ODA policy is to increase the number of women who participate in training, and The Council has reserved six slots for women in development short-courses for 1988/89.

The ODA allocates training money to Sudan based on availability, history and communication with the Assistant Representative of The Council. This person must be in constant contact with ODA advisors in Nairobi and local project staff and ODA technical officers in Sudan in order to anticipate training needs. Unlike A.I.D. which requires a statement about the nature and anticipated cost of project related training, ODA development projects do not contain plans or funds for external training. Training is determined after the project has begun and rests upon the ability of the Assistant Representative to elicit training needs as the project evolves.

If an advisor or technical officer suggests a particular overseas course, that request is forwarded to ODA/London. If not, then as much information is gathered as possible and sent to headquarters where courses are selected for a nominee. The lead time needed for gathering information and confirming placement of a candidate is 12 months. Delays naturally result from the long communication trail that extends from the candidate through the National Training Administration to London. Approximately 240 nominations will be made in order to successfully reach the allotment of 180 training positions for 1988/89.

G. Ford Foundation

The Ford Foundation in Sudan has issued grants in value from \$15,000 to \$421,000 since 1981. The University of Khartoum has received the largest amount at \$721,000, followed by the University of Gezira (\$550,000), National Council for Research (\$320,000), Rahad Agricultural Corporation (\$267,000), University of Juba (\$248,000), and Ahfad University College for Women (\$150,000). Other recipients include the GOS Directorate of Antiquities, National Museum of Sudan, Traditional Medicine Research Institute, Sudanaid for Refugees, and the Jebel Marra Rural Development Project in Zalingei. During the past seven years, Ford Foundation support in Sudan has exceeded \$3,500,000. The Foundation has moved from water and irrigation as an emphasis to women in development and, more recently, to conservation of traditional art and knowledge.

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DONOR AND COPROPRATE ACTIVITY IN SUPPORT OF THE PUBLIC SECTOR

The public sector has a critical role in the economic restructuring that will be the foundation for private sector development.

1. Sister Cities and Institutional Twinning

Urban centers have an important role to play in promoting the private sector. As donors and Sudanese municipal governments look for self-financing urban programs, sister cities provide a promising mechanism. For example, Davis, California, Boulder, Colo., and Seattle, Washington all have sister cities in Esteli Department, Nicaragua, and have made donations up to \$10,000.

Institutional twinning would pair a municipal water department or city council in the Sudan with a similar institution in the USA. Officers from the Sudanese institution may take study tours or even be seconded for a period with their institutional twin to learn new management technologies and practices. Officers from the US agency may also be seconded to the Sudanese agency to provide technical assistance and training. AID should consider supporting this.

2. Alternative power

The present power shortages in the Sudan, coupled with the decreasing flow of the Nile suggests that alternative power sources will be needed to supplement the El Roseires and Sennar Dam. Greater attention should be paid to smaller-scale power sources. Two are particularly promising for expansion in Sudan: photovoltaic and biomass.

Photovoltaic cells are semi-conductors which turn sunlight directly into electric current. They are too expensive for large-scale power generation, but cost-effective for remote areas that are expensive to connect to grids. Only 19 megawatts have been connected to the American grid, but by 1995 an estimated 5,000 megawatts could be connected: 16 times the existing output of Sudan's dams and 2 1/2 times the total hydropower potential of the Nile in the Sudan. Countries like the Sudan are ideal sites because of the vast stretches of sunny, vacant land. Photovoltaic cells can be made cheaply by reducing their conversion efficiency; the tradeoff is that a larger area is required to produce a given output--- no problem when you're living in a desert.

The Sudan relies on wood, animal dung and crop waste for most of its energy needs. The problem is that trees are getting used up, and dung and crop waste are needed as nutrients in fields. A promising alternative is biogas. China produces 20m tons of coal equivalent in 7m digesters, where dung is used to make gas, and leaves a residue good for fertilizer. The Sudan could do the same, and AID should assist.

3. Streamlining financial management

The shortcomings in this area are not surprising given the shortages of trained staff in most government organizations because of unattractive terms of service, and the conflict between political appetites and technical and economic soundness. Yet some countries have made progress, and the lessons learned there should be applied elsewhere, with AID support.

The organizational change required may be painful. One strategy that has helped in Kenya is to establish a Task Force on Financial Management, with World Bank support. The Task Force has a series of full-day meetings taking place every 3 - 6 months, each attended by 40 - 60 officers and their technical advisors. Largely the same group of officers and advisors attend each meeting. At these meetings progress since the last meeting is reviewed, problems discussed, and planned accomplishments for the next period agreed upon. These meetings allow for an innovative interdivisional or interministerial exchange of views, and help to coordinate planning and monitoring activities. They also help to stimulate action, since divisions or ministries don't want to have to admit in the presence of their peers that they have not accomplished what they promised to do at the last Task Force meeting.

4. Chevron Scholarships

Chevron says it pays about \$250,000 per annum to the Ministry of Energy for scholarships for students pursuing masters and doctoral degrees. This year, that amount has been earmarked for scholarships in the US, Britain, and Western European countries, according to the Chevron MD, F. E. Wisner.

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ORGANIZATIONAL AND PERSONNEL PROBLEMS IN GOVERNMENT SERVICE

An underlying cause of the Sudan's public management problems is the lacuna of middle management and professional skills throughout the Government establishment. Often only senior officials and advisors have sufficient understanding of complex government systems to make informed decisions. Middle management is often demoralized by low salaries, infrequent promotions, and a lack of meaningful involvement in critical decisions.

Senior officers are unwilling to delegate work to their subordinates for many reasons. Mid-level officers often have higher academic qualifications than the officers they report to. This builds frustration on both sides. Senior officers may feel threatened by their subordinates, and be reluctant to fully brief them so that they can be productive. Alternatively, senior officers may feel that in the past they did try to give meaningful work assignments to their subordinates and did spend lots of time giving them full briefings, but that they were let down with mediocre performance, missed deadlines, etc. As a result, these same senior officers now complete critical work assignments themselves, or give them directly to expatriate advisors who are both less threatening to their positions, and more reliable in satisfactorily completing work assignments on time.

Not surprisingly, many mid-level professionals are content with a title, an office, a telephone and a non-demanding job. However, the more ambitious believe that senior officers are unreasonably impatient---naturally mid-level professionals will take longer than experienced expatriate advisors to complete work assignments, until they are experienced themselves. Officers also feel they should be allowed to fail---only through exercising the creative judgment that often leads to failure will they become seasoned, productive middle-managers. However, for the reasons outlined above, senior officers may exclude their subordinates from meaningful work. This, combined with what is frequently a low level of motivation and mediocre abilities of junior officers, creates a chicken-and-egg situation: when junior officers are given major work assignments, their performance is unsatisfactory; therefore they are passed over for subsequent assignments, and never gain the experience that would eventually make them productive. Those junior officers that do show initiative may fail and be chastized, or may threaten their superior and be chastized for that. As a result, junior officers don't get promoted, and middle management posts go vacant. Senior officers are overworked, while many of their subordinates are not given meaningful work assignments.

The resultant alienation of otherwise talented individuals contributes to another problem common throughout the world in

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organizations with frustrated employees: over-compartmentalization. Officers are reluctant to type, typists refuse to make photocopies, photocopiers refuse to mail letters. The result is that a simple task like writing a letter can become enormously complicated: typically an officer drafts the letter, a typist types it, the officer proofreads it, the typist fixes the mistakes, the officer signs it, a messenger takes it to the photocopy machine, the photocopy specialist makes copies, the messenger returns the copies to the typist, the typist prepares the copies for dispatch, the messenger takes one copy to the mail room, and other copies to the registry, where they are placed in appropriate files and sent to the appropriate officers for review. On the positive side, such a system provides jobs for officers, typists, messengers, photocopiers, mail room staff, and registry clerks, and allows each to become proficient in his/her job. However, what often happens is that something goes wrong---someone is sick or on leave, the photocopy machine is out of paper or ink, the registry can't find the appropriate files. Too often, the response of the officer concerned is to shrug his shoulders and say "What can I do?" Rather than find someone else to do the typing, or to do it himself, everything waits until the missing link reappears.

Training is an obvious approach to improving management skills. The best training programs teach new technical skills (information systems, use and care of modern equipment, financial management, critical path analysis) which trainees can put immediately to use in their jobs. The goal is both to directly enhance their productivity and to increase their professional self esteem. Government salaries are often at a bare subsistence level, and the best-qualified staff are constantly on the lookout for more lucrative opportunities with private and international employers. Although government salaries will never be competitive, government training benefits usually are, and are an essential benefit for retaining qualified staff.

One form of training commonly used is in-service workshops. This has the advantage that it takes officers away from their duties for a minimum of time, helps to teach them new government procedures, provides a welcome break from job routines, and helps to give officers meaning and direction in their professional lives.

Long-term training affects many fewer officers, but often uses up a larger proportion of total training funds because of far greater costs per trainee. Long-term training is considered highly desirable by many officers for many reasons. The academic degrees earned are a prerequisite for promotion in the civil service. They are also marketable outside Government. Returned trainees may use their new credentials to gain positions with parastatals, private firms or international agencies at 2 to 4 times their former Government salary. Some may secure positions abroad paying 5 to 10 times their former

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earnings. One study on the Scheme of Service for Economists and Statisticians in Kenya documents that the most marketable degree in this sense is the M.B.A.--the degree that focuses on those management skills which are in shortest supply. A major advantage of in-service training is that it does not have the same impact on a trainee's marketability. The disadvantage is that it is a much less powerful incentive to attract and keep talented officers.

Thus, the Government is caught in a dilemma. To attract and keep good managers, it must offer long - term training possibilities. Since few other organizations offer such attractive training possibilities, many excellent candidates will continue to be attracted to Government service despite all the competitive disadvantages. However, other equally powerful incentives are needed to hold on to officers after they have completed the long-term training and requisite bonding period.

Because of budget ceilings and cumbersome civil service procedures, Governments have few possibilities for providing such incentives. Security of employment might be an incentive for some, but not for the high-achieving graduates of long-term training that can easily come by attractive, competing offers. Professional satisfaction is surely a factor for some, but again competing offers with the private sector and international organizations may offer this along with much greater income.

The solution for some officials is to collect unauthorized payments from the public for performing services. For many others, the solution is to participate in a grey economy of semi-legal salary increments from wide-ranging sources:

- 1) Overseas workshops, conferences and study-tours offer foreign currency per-diems, and opportunities for duty-free shopping. Even after duties and excess baggage charges have been paid, desirable items like electronic equipment and clothing can be imported which are unavailable locally. Overseas visits also facilitate making contacts that may lead to consultancies and/or alternative employment in the future.

- 2) Officials may be given a generous per-diem by a local contractor for work-related field trips. By staying in modest accommodations, mid-level officers may more than double their salaries from such sources.

- 3) Officials may be paid by a contractor to do something outside of their normal duties such as writing a paper for a conference, or working overtime. This type of scheme is heavily abused in countries such as Egypt, where many officials refuse to be of any service to the public without being hired as "consultants". Government officials have access to valuable information and contacts that can be marketed elsewhere.

Unlike most industrialized countries, LDC officers are often not prohibited by law from such arrangements; indeed, they are encouraged to do so as an incentive to remain in Government service.

4) Qualified staff may be hired on contract by a Government Ministry at a higher rate than normally paid to employee of the same grade. Such arrangements are typically part of donor-funded projects. They alleviate the problem of gaining official approval for creating new posts, and permit paying the market wage for a given skill. Although such practices are widespread in industrialized countries they are not as common in Kenya, and generally restricted to junior-level technical positions.

All of these incentives probably help to retain qualified staff, although there is only impressionistic evidence to support this.

Still, the shortage of middle management remains. For example, in the Sudan the net vacancy rate for government is 2-4 per cent at the regional level, and 7-18 per cent at the central level. Many of these vacant posts are middle management positions. If one excludes the poorly motivated officers in some of these posts, the effective vacancy rate is much higher.

TRAINING RESOURCES FOR WOMEN AND THE PRIVATE SECTOR

1. University of Khartoum, School of Business and Administrative Sciences.

The university was founded by the British in the 1920s as a college and, until recently, has been the only university in Sudan. Students from the University are more highly regarded than students from any other Sudanese university, but standards have been gradually slipping over the last 30 years.

In 1986 the University Council created the School of Management Studies as a separate entity with its own Dean; previously it had been housed within the Faculty of Economics and Business Studies. The school is comprised of a Department of Business Administration, Department of Accounting and Finance, and a Department of Public Administration. There are two supporting units: Statistical and Computing Laboratories and the Consulting and Training Unit. The faculty of 20 all are Ph.D. holders, eight of whom are graduates from U.S. universities.

Discussions at the school focused on the purposes, anticipated activities and needs of the Consulting and Training Unit which has not yet become operational. It was evident that the faculty wishes to break away from the highly orthodox, isolated climate of the university. They have proposed to mount (a) senior executive programs, (b) mid-level management programs, (c) occupationally oriented programs [e.g., for accountants], (d) industry specific programs [e.g., for textile companies], and (e) conferences on policy issues. Individual faculty have conducted consultancies [e.g., needs assessments in textile plants], but it was evident that they were struggling with an approach for reaching the business community. Inexperience and the lack of a separate public identity from the Faculty of Economics is hampering school's entrance into management training and consulting.

2. University of Gezira, Faculty of Economics and Rural Development.

In contrast to the University of Khartoum, the University of Gezira was only recently established in 1977 and chartered with community outreach as one its primary purposes. There are five faculties: (1) Medicine (2) Agriculture (3) Economics and Rural Development (4)

Science and Technology and (5) Education, the newest faculty. Within the Faculty of Economics and Rural Development, there are the Departments of Economics, Agricultural Economics, Rural Development, Accounting, and Management.

The Department of Management next year will begin cooperating with the Management Development Center in conducting the Executive Development Program (see below). This will tie the university into the private sector network established by the Management Development Center. Outreach to business and government agencies will also be made through the Small Scale Industries Development Center of the Faculty of Science and Technology. It is hoped that this center will receive a one million dollar grant from the Dutch government. It will serve bakeries, cheese makers, construction firms, soap manufacturers, etc. in developing technologies appropriate to Sudan. The two centers will work closely together on technical and management issues.

It should be noted that, although the philosophy and orientation of the University of Gezira is toward practical application of skills and interaction with the community, many of its intentions along these lines are still in the planning stage. Another concern is that the university may be trying to develop too many centers and activities at one time, far beyond the financial resources available.

3. Ahfad University College for Women, School of Organizational Management.

The Ahfad University College for Women was founded in 1966 as a private, four-year diploma granting institution; in 1984 it was elevated to university status and authorized to confer B.S. and B.A. degrees. It admits only women--currently 1000 in number--and retains its character as a private university. Ahfad University has graduated over 800 students since 1970. Graduates are engaged as hotel managers, owners and directors of pre-schools, instructors at Youth Training Centers and secondary technical schools, social workers, health educators and government officers.

The university is divided into a School of Family Studies, School of Psychology and Pre-School Education, and School of Organizational Management. All students must enroll in a rural extension course during which they live and work in villages as interdisciplinary teams for several months. University staff conduct supervisory visits, coach students in their practical duties, and critique

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extension research papers. The faculty also conducts specialized courses for village women at the university at the request of government departments, international organizations, and NGOs. These workshops may involve anywhere from 3 to 40 participants and may focus on basic business management skills, income generating projects, leadership and cooperation, health care and family living. In addition, faculty have implemented action research programs in rural areas on behalf of local and international sponsors.

The School of Organization Management plans to become more involved with small scale women entrepreneurs who are emerging as a new group in Sudan society, especially within Khartoum. These women are establishing shops and businesses in market areas and represent a significant shift away from the informal sector where women work as street vendors and provide miscellaneous services. This new group is involved in publishing educational materials, operating pre-schools, making and selling ready-made clothing, and retailing food, handicrafts and animal products. Because the faculty perceives a growing need and opportunity to serve this group, it will establish a small business course of study with the School. The implementation strategy will be to conduct training needs assessments and pilot workshops for women entrepreneurs. After some experimentation with these short-courses, it will formulate a six month program in small business studies for Ahfad degree students. It is also expected that instructors from Youth Training Centers and secondary technical schools will benefit from this new initiative. The faculty has surveyed graduates of these institutions and found that in most cases they are receiving technical education but are not capable of using their skills profitably.

4. Vocational Training Centers

There are six Vocational Training Centers administered by the Ministry of Labour. Courses of study include electricity, air conditioning and refrigeration, carpentry and joinery, building construction, welding, sheetmetal, plumbing and pipe fitting, and automotive repair. Students are enrolled in supervised occupational experience programs (i.e. assigned to work with an employer as an apprentice) during the third year of study. However, the limited number of industries prevents students from getting such experience.

5. University of Khartoum, Development Studies and Research Center

The Development Studies and Research Center was established in the Faculty of Economics and Social Studies in 1976 and, in association with the Institute of Social Studies, Netherlands, began a program of management training courses in 1986. Participants have been drawn from banks, NGOs, parastatals, central government and regional government. The program has recruited heavily from the latter group which rarely has an opportunity for training. Courses focus on topics such as project design/appraisal, data management, rural development planning, etc. Since 1986, 378 participants have attended 18 courses. Staff have developed case studies from reports of international donor agencies and from submissions by participants who attend the courses. The courses often require a Bachelor's level background in economics, accountancy and commerce. Although the program seems to have wide appeal and serves the public sector well, its orientation may not fit easily with private sector needs.

6. Sudan Academy for Administrative Sciences

The Institute of Public Administration was established in 1960 and later in 1978 became the Sudan Academy for Administrative Sciences. The Academy offers a post-graduate diploma in development management and administration designed for public administrators. Those who attend are senior government officials at the central, regional and local government levels. Topics covered include public policy formulation, public finance, project management and other similar public administration areas. The school devotes a number of courses to secretarial studies as well. The Academy is strictly oriented toward civil service training demands and responds to requests that come from various government ministries through the National Training Administration.